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squirrel scsi interface included where you see this logo

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award winning amiga peripheral manufacturers



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Power Computing Ltd are now the official joint owner and manufacturer of Great Valley Products Inc. For more information, please call 01234 273000.

a4000 68060

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contents

CU AMIGA MAGAZINE • OCTOBER 1995

Cover Feature

Desktop Dreams 25

Enter the exciting and creative world of desktop publishing with this month's *PageStream 2* cover disk! Take a walk through the stages of producing a professional quality newsletter with our expert guide to DTP and *PageStream*, exploring and explaining all of the amazing possibilities available to you and your Amiga. So before you can say 'Robert Maxwell' you should be producing magazines, flyers, posters and newsletters to beat the rest of them.



Feature

Get Stuffed 32

Massive storage devices are everywhere at the moment, from 100Mb Zip drives to 650Mb magneto-opticals that double as CD-ROM drives. Find out exactly which option is right for you in our exclusive guide to all the current mass storage devices. You'll never want to go back to 800K floppies again!

Get Serious

- **Real 3D V3** 70
A real heavyweight of Amiga 3D rendering. Real 3D is now at version 3. Has it managed to stay up with the pack, or is it just a load of shiny balls?
- **Multimedia Station** 74
Hook your A1200 or A600 up to PC-style IDE CD-ROMs and hard drives with this towering expansion system.
- **L2000 Genlock** 77
Mixing Amiga graphics with video is a breeze with this classy little Super VHS and composite video genlock.
- **MultiData MO** 78
It's a 650Mb magneto-optical drive, and plays at being a CD-ROM drive too!



Public Domain

- **PD Scene** 89
The classic *Load Runner* makes an appearance this month, along with another batch of top demos and games.
- **PD Utilities** 95
Over 40 public domain utilities are unearthed in this month's guide to the more useful end of the public domain.



- **Sonnet Doubler** 79
Could this 50MHz clocked 68040 accelerator be the power boost your A4000/040 needs?
- **PageStream 3.0i** 82
Check out the latest release of this month's stunning DTP cover disk program.
- **CD-ROM Round-up** 84
The latest installment in the famous Amiga saga arrives, along with a great fonts disc for desktop publishing fans.

Cover Disks



PageStream 2 10

PageStream 2.2: the full working version is on cover disk 117. Get into desktop publishing, producing your own magazines, newsletters and more with this highly powerful professional software package.

Fears (A1200) 12

More Doom action all the way from France. Could this be the one we've been waiting for even longer than we waited for the others? See for yourself.

Citadel (1Mb) 12

Even more Doom action. This time on an A500 with 1Mb chip RAM if you like. It's a bit slow though. If you have an A1200 it's better; an accelerator and you'll love it.

Games

FEATURE

• Head-To-Head Games 38

Games as they were meant to be: serious competition. We look at how you can get the most out of the new breed of 3D 'Doom' clones by playing with a pal and a null modem link up.



PREVIEWS

• Pole Position 44

Another football management simulation from Ascon? Nope, it's a Formula 1 sim.

• Citadel 44

A Doom clone for the A500? Can it ever work? Will it be self-defeating?

• Pinball Mania 46

The follow-up to Pinball Illusions: More AGA Pinball tables - but not by Digital Illusions.

• Virtual Karting 46

Can OTM come up trumps with this fast arcade game based on go carts?



REVIEWS

• Odyssey 53

Jumpastic platform adventure action as you blade baddies and collect crystals.

• Club and Country 56

The word REVIEWS is a bit like the theme tune to match of the day - yes, it's football management time again.

• Football Statistician Professional 56

Not really a game folks, but it may help you with the game we all love.

VFM

• Bravo Romeo Delta 59

Sounds like a Latin American TV star doesn't it? You couldn't be further from the truth ... it's a nuclear war simulator. Vive la France!

• Subversion 59

Submarine frolics for your Amiga? Or will it give you that sinking feeling?



News

• News 20

This month we congratulate ourselves on a bit of astute interviewing in the August issue as Amiga Technologies confirm that the A1200 will cost £399 and they will import 50,000 of them for Christmas in the UK. There's also a new Amiga monitor and a VR headset amongst other goodies.



Feature

• High Spirits 36

We talk to well known TV veteran Terry Jarvis about his latest project Spirit of the Pharaoh. He tells us why he chose the Amiga to bring this animated adventure graphics to life.



Players Guides

• Valhalla 2 Solution 60

Will that blasted Lord Of Infinity ever finish his quest? Parloin? ... Oh, you mean he does this month? Right folks, let's get it over with.

• Vampyra 65

Top tips temptress Vampyra loves a bite on the side. Fortunately a slice of venison or buffalo, but a big juicy adventure will do nicely too.

• Snip Tips 66

Not to suppose he's so many friends he never actually needs to play a game himself: he gets all his codes through the post. Don't let him down now!

Editorial



The market is pretty strange at the moment. One half of it, the games sector is in a definite state of decline. The only way it will recover is for Amiga Technologies to actually sell the 50,000 A1200s they are promising very quickly, with the possibility of another 50,000 sales very early in the new year. With new games consoles and massive advertising spends in the PC sector, games companies are now, more than ever, sidelining the Amiga. Even games like Worms, developed on the Amiga by an Amiga fanatic, are being held up just so that their release can coincide with that of the other versions. Whilst a CD-ROM drive the Amiga is even more vulnerable to sidelining. Don't be

flooded into thinking otherwise. This is not a healthy market.

But don't lose heart, the peripherals and productivity side is picking up again (it never really got that bad). Newer and more powerful accelerator boards are being produced and imported, most of the major productivity software packages are on the upgrade path and companies like Power Computing are investing heavily in the future with purchases like GVP. This side of the market is still thriving and the lesson to be learned is that the Amiga will not go away. Games software companies will not destroy the Amiga like they did the ST, several types of PC and all the old home computers. It is not a toy. It will survive. Alan Dykes, Editor

Workshop

Buyers Guide

Video digitisers are under the spotlight in this month's buyers guide.

OctaMED 5.04

Ed Wilkes starts his tutorial series for our 'banging' cover disk from the September issue.

Image FX

Let Tony Horgan take you through another session of stunningly original image processing ideas.

ProDraw

Find out more tricks and techniques for use in Pro Draw as Larry Hickmott shows you how it's done.

Graphics Masterclass

3D stereograms and Personal Paint are the subjects of Peter Lee's graphics masterclass this month.

Wired World & Net God

All you need to know about setting up AModa, plus news and rants from Net God.

Frequently Asked Questions

Why tumble around in the dark, when John Kennedy is on hand with enlightenment from frequently asked questions.

Q+A Masterclass

There's no need to have a draft old grey Workbench. John Kennedy continues his interior design course.

Questions and Answers

No problem is too big for the CU Amiga Q+A team! Tony and Mat are your men.

Backchat

Opinions and views from all the back flung corners of the Amiga scene.

Points of View

Having just seen Alien Breed Mat Bettinson calls for forward compatibility in games.

100

102

104

106

108

110

115

120

122

126

130

Editorial

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2. Please remember that we have to write and produce your favourite magazine every month, so we cannot reply personally to the hundreds of calls, letters, and faxes we get. Answers have to be through the pages of the magazine only.

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For general, non-technical, enquiries send your letters to Backchat. For technical problems send them to Q&A. Both are at CU AMIGA MAGAZINE, Priory Court, 30-32 Farrington Lane, London EC1R 3AU. Phone: 0171 872 6306, FAX: 0171 872 6306. Please remember that we cannot answer enquiries in detail by phone. If you need advice urgently or have a problem then do us a call between 4.30pm and 5.30pm mon-fri. We will try to assist you within these hours, but complex questions may be too difficult to resolve over the phone.

Alternatively, E-mail us at backchat@cu-amiga.demon.co.uk or Q+A@cu-amiga.demon.co.uk.

PD SUBMISSIONS

We get hundreds of new PD packages every month, but we're still hungry for more. If you've written a PD program that you're proud of send it to the PD ZONE, CU AMIGA MAGAZINE, Priory Court, 30-32 Farrington Lane, London EC1R 3AU.

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CU AMIGA MAGAZINE runs competitions almost every issue. To enter one of these simply put your name and address on the back of postcard, along with the answers and send them to us at the usual address. Competition entries are only accepted by post. One entry per person please and the editor's decision is final. Winners will be notified by post. Other rules may be printed from time to time.

BACK ISSUES: 01958 400 808. Subject to availability.

SUBSCRIPTION DETAILS:

Subscriptions are available from Tower Publishing, Tower House, Sovereign Park, Laburnum Street, Market Harborough LE16 9EF Tel: 01953 458888. Annual subscription rates (inc postage) 12 issues: UK/EURO £47.50. SURFACE/ROW £55.00. ANNUAL EUROPE £50.00. ANNUAL ROW £52.00. ANNUAL ROW ZONE 2 £56.00.

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PRINTED IN THE UNITED KINGDOM BY ST IVES PETERBOROUGH

ABC 55,789 Jan - Jun 1995.

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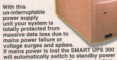
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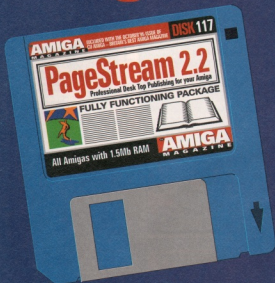
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DISK 117

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Awesome power at your fingertips comes your way with *PageStream 2.2*, the fully functioning DTP system for your Amiga.

CU Amiga Magazine and Soft-Logik Publishing would like to express their gratitude to Agfa for granting permission to use the CS Times and Triumvirate typefaces on this cover disk. These typefaces appear on this cover disk only as part of *PageStream* and the copyright remains with Agfa. Agfa is a registered trademark of Agfa-Gevaert. AG CS Times, based on Times New Roman under license from the Monotype Corporation plc, is a product of Agfa Corporation.

Yet another top productivity package is yours to keep with this issue. Get into DTP with PageStream 2.2

Desktop publishing programs are used to create magazines such as CU Amiga Magazine. Until now, they have been too expensive for most people to buy, which is why we have decided to give you *PageStream 2.2*, the most popular Amiga desktop publishing program ever.

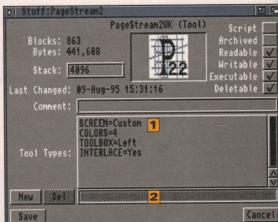
This is not a crippled program, but the full commercial program that has a RRP of £174.95. It can be used by anybody with an Amiga, a printer, and at least 1.5Mb of memory. While it works best with a hard drive, you don't even need to have a hard drive or AmigaDOS2 to use it. To fit *PageStream* onto our cover disk, a few files such as import modules for Atari and PC graphic formats had to be left out. Some of these will be on next month's CU Amiga cover disk, so ensure you get a copy as soon as it's out!

PageStream is easy to run – just decompress the cover disk to two floppy disks by following the instructions on page 14. If you don't have a hard drive, just boot from disk one and then double click on the *PageStream* icon. An installer is provided for those with hard drives.

If you've never used a desktop publisher before, or if you have a more basic program and wished you could afford one with more features, CU Amiga Magazine's exclusive cover disk is your answer!

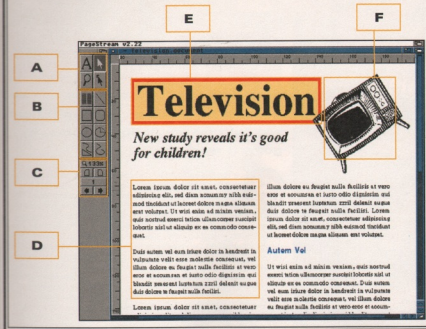
Setting it up

To configure *PageStream 2.2*, you need to change tooltypes. Select the *PageStream2UK* icon and select the Information or Info command from your Workbench's menus. A requester similar to the one shown here will appear. To change a tooltype (1), click on it



▲ *PageStream 2.2* can be customized to suit your system and personal preferences. Click once on the *PageStream2UK* program icon and select Info or Information from the Workbench menu to alter the settings.

PageStream 2: a guided tour of the screen.



pages. Click on the page number to move directly to a different page, or on the arrows to move to the previous or next pages.

D. To put a lot of text on the page, choose the Layout/Create Columns command or draw a text column with the column tool. Unlike a word processor, you must create your columns before entering text. You can put as many columns on the page as you want, and you can link them together with the Layout/Set Text Routing command.

E. To write a small block of text, such as a title, choose the Text tool, click on a blank area of the page and just start typing. When you resize this text object with the Object tool, the text will change size.

F. To import a picture, choose File/Import >>Graphic and select a picture file from the file requester. Note that the View/Show Pictures must be on to see imported pictures and that they are in black and white only. To draw a shape, choose one of the drawing tools and click the mouse at the start point. Move the mouse to the end point and click again.

Where is the ...

The Publish, Subscribe, Update, Information and Break Link commands will always be ghosted out because the HotLinks feature is not included with this cover disk. The spell check feature can't be used with this cover disk because the dictionary is not included. Next month's cover disk will have more files, so be sure to get it.

To learn more

If you want to get the most out of PageStream, you'll be glad to know that the official instruction manual is available for a very low price. CU Amiga readers can get the PageStream 2.2 or PageStream 3.0 package for the lowest possible price. Check the offer in this issue for more details.

For a full introduction to desktop publishing with PageStream 2 and your Amiga, turn to our DTP feature starting on page 25 of this issue. There you'll find all you need to know to get you started on the road to professional DTP. As usual we'll also be supporting this PageStream cover disk with a series of tutorials over the coming months to take you through all of the program's powerful and highly creative features. Now turn to this month's DTP feature! ■

with the mouse. Edit the text in the text gadget (2) and press Return to change it. Click on Save to save your changes. You must do this before you start running PageStream.

Screen: Set this to 'custom' to run PageStream on a new screen, or to 'Workbench' to save memory and run it on your Workbench screen.

Colours: Set this to the number of colours you want on screen. More colours are good for colour documents, but slow down the program.

You can enter 4, 8 or 16 with

an Amiga 500, 1000, 2000 or 3000, plus 32, 64, 128 or 256 if you have an Amiga 1200 or 4000.

Toolbox: Set this to 'Left' to make the toolbox appear on the left, or to 'Right' to make it appear on the right.

Interface: If your screen is flickering when you run PageStream, you may want to change this from 'Yes' to 'No'. Warning: this will cut down the resolution of the screen and it will be harder to read.

If you run PageStream in up to sixteen colours, you can use the Global/Change Screen Colours

command to choose what colours will be available. If you have an Amiga 1200 or 4000 and run it in more than 16 colours, this command isn't needed because PageStream will set the colours for you.

Our guide to PageStream 2.2

When you first start PageStream, all you will see is the toolbox. Choose the File/New command to create a new document, or File/Open to open one you have already created.

A. These are the most important tools to learn. The 'A' (Text) tool is used to type text while the arrow (Object) tool allows you to select, move and scale objects. The magnifier tool lets you change the view magnification and the second arrow (Reshape) tool is for editing complex shapes.

B. The drawing tools (from left to right, top to bottom), are used to draw text columns, lines, boxes, rounded boxes, ellipses, arcs, paths and free-hand sketches.

C. Click on the view magnification to set a custom view. The page icons let you use master

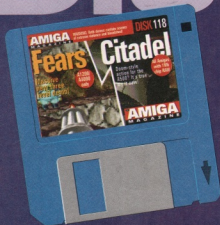
What is desktop publishing?

Desktop publishing (DTP) is the system used to produce books, magazines and newspapers. Anyone with a DTP system can produce pages consisting of text and images, and have them output to film for printing in multiple copies. The beauty of DTP systems over conventional computer graphics and word processor packages is that they can use structured text and illustrations, avoiding the jagged pixelated edges of the host computer's display.

DTP systems evolved from the traditional methods of page layout, so references to cutting and pasting abound. Colours are usually defined as relative levels of cyan, magenta, yellow and black (CMYK), the primary ink colours used in the printing industry, rather than red, green and blue (RGB) as used in most computer graphics applications.

It's not essential that a printer is permanently installed with your Amiga; files can be saved and printed elsewhere.

DISK 118 Citadel



Fears

A1200/4000 only ■ See loading instructions on page 14

Don't worry, be happy. This three level demo will warm the parts that only a shoot 'em up can reach.

You've seen the preview now play the game. This three level demo sees you taking the part of a hard boiled loony in his quest to rid a dungeon full of floating golden monsters and baby faced midget terrorists. There's no mistaking that Predator-style minigun, or the distinctive bobbing up and down of the protagonist. In fact, if you, like our editor, feel a tad seasick by the way he moves then fear not! You can enter the main menu and switch this simulated movement off.

You shouldn't have to do too much adjustment to *Fears* to get it running fast, even on a basic A1200, but should you want to the F keys will facilitate you. F2 gets rid of wall detail, F3 gets rid of floor and ceiling detail and F4 to F7 give you full to narrow screen areas.

Pick up all the weapons in the first room. You will be able to access them using the number

keys. Ammunition must be picked up for these along the way. You may not always have access to medical aid so don't use it up willy nilly.

There is a puzzle aspect to the game and to open all rooms you will have to turn every switch on the level green. If you find that you can't get anywhere, you've missed a switch. The minigun and the rocket launchers are the most useful weapons, but conserve your rockets until you really need them. Enjoy!

Control is via the direction keys (to move or turn in any particular direction), the right-shift key (which fires your gun), the F keys which select weapons, the space bar which will operate doors and the mouse which allows you to make selections by left clicking on what you want. Have a good time.

All Amigas with 1Mb chip RAM ■ See disk loading instructions on page

Another Doom clone, but wait: I can see light on my A500! It works, by golly, it works!

Six months ago people were saying that *Doom* was impossible to emulate on the Amiga. No way José. Can't be done. Well the message is YOU WERE WRONG! Not only has it been done adequately on the A1200 with *AB3D*, *Gloom* and, left, *Fears*, it's now available on A500.

In this demo of *Citadel* you will find yourself in the laboratory. This is a maze of rooms, some of which will have weapons and ammunition, others enemy. To pick up weapons or ammunition simply walk over them, a message will scroll under your screen telling you what you have just picked up.

Remember, you must pick up individual ammunition for each gun. You may have collected 150 bullets for your pistol but they're not much use in the rifle!

Upon loading the game make sure to optimise it for your machine. If you start playing immediately on an A500, 500+ or 600 you'll feel as though your character has 600lbs of concrete attached to his feet. To make it go faster you need to do two things. a) Adjust the size of the

screen and/or b) adjust the resolution and decide whether you want floors in your maze.

You can get reasonable speed on an ECS machine simply by entering the options screen and adjusting detail to minimum and floors to off. It's also a good idea to switch difficulty to easy at first. Once you are in the game you can twiddle between screen sizes and speeds by using the keys 1 to 8 (not the F keys mind). 1 gives you a screen the size of postage stamp, 6 gives you a wide screen effect, 7 is almost full screen and 8 is completely full screen. You will get the most out of the game between 1-5 on slow machines. Try it on 1 if you have a pair of binoculars.

Your health is shown on the digital readout on the left of the screen and the amount of ammo you have for each gun on the right. Remember that keys (which look like circuit boards) are treated like weapons and have to be selected and used with the F keys and right-shift to operate them. There is no training mode in this demo.

Now all you A500 owners have something to crow about. ■



▲ Inset: The little green man starring in *Fears* waits for you just behind the staircase. **Above:** *Citadel*: it's a blood and action in *Citadel*, beware if you have a sensitive stomach.

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A screenshot of a game interface. At the top, there are three small portraits of characters. Below them is a large map area with a blue river flowing through a green landscape. On the right side of the map, there are several orange icons. At the bottom, there is a row of various icons and a small text area on the left.

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Our Ref.: TIM1

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cover disks

How to load ...



Before you start ...

Make a back-up copy of your cover disks before you do anything. This will save you endless trouble if you erase or damage your disks.

If you aren't sure about how to make a back-up just follow our guide to the right. Make sure to rename your back-up disks to match the originals.

For example, the copy of *PageStream 2.2* will be automatically renamed 'Copy of Disk 117' by the Amiga. Use the Rename option from the Workbench menu, deleting the 'Copy of' prefix. This is absolutely essential, because the program may not work otherwise.

Making a back-up is easy:

1. Take a spare blank disk.
 2. Boot with your Workbench disk and load the Shell program. This can be found in the System drawer double click on it.
 3. Now type in the following line and press Return:
`diskcopy from df0: to df0:`
 4. You'll now be prompted to insert the source disk (115, 116 etc). After a few minutes you'll be asked to insert your blank disk.
 5. On some Amigas you may have to swap disks more than once during copying.
 6. Once finished type in the following, and then press Return:
`endcll`
- You now have a back-up.

IF YOUR DISK WON'T LOAD

We go to great trouble to ensure that the CD Amiga Magazine cover disks will work on common Amiga models. However, if you do experience problems follow this simple guide. We also vigorously virus check our cover disks on a branded virus checker. If you escape our attention we cannot assume responsibility for it.

1. Remove all unnecessary expansion and peripherals, such as printers and modems. Some trapdoor expansion can also cause problems.
2. Follow the instructions on this and previous pages exactly.
3. If you still experience problems loading the disk call the disk/press helpline on 0451 810 788 between the hours of 10am and 5pm Monday to Friday.
4. If they advise that the disk is faulty, fill in your details in the form below, and send this form, along with the faulty cover disk and a 35p stamped self-addressed envelope to:
CD Amiga Magazine Disk Returns, Disk/Press, Unit 7, Willow Court, Bourton Industrial Park, Bourton-on-the-Water, Gloucestershire GL54 2HD.

NAME: _____

ADDRESS: _____

TYPE OF AMIGA OWNER: _____

DISK NUMBER: _____

DESCRIBE EXACTLY WHAT HAPPENS WHEN YOU TRY TO LOAD THE DISK: _____

WRITE PROTECT YOUR DISKS

Before you do anything, write protect your cover disks. Cover disks 117 and 118 must be write protected before you begin the decompression process, otherwise you may overwrite the original data.

PageStream 2.2

Have two blank disks ready (these must be write enabled). Insert disk 117 into the internal drive and reset your Amiga. Click on New Goodies when asked which part you want to expand. Press F1 and insert the first of your blank disks at the prompt, then press Return. Replace the cover disk when asked to do. Press F2 to start decompressing the second part. Insert the second blank disk at the prompt and press Return.

To load *PageStream*, boot from the first of these two disks. Double click on the *PageStream* disk icon, then the *PageStream* program icon. Refer to page 8 for further instructions on setting up the program.

OctaMED 5.04 Expander

Last month's *OctaMED 5.04* disk had a bug which meant that it wouldn't decompress on certain Amigas. You can use disk 117 in conjunction with disk 115 to decompress the *OctaMED* disks.

Select *Expand OctaMED*. You'll need another two blank disks onto which the *OctaMED* system will be installed. Press F1 and follow the prompts as above to decompress the first *OctaMED* disk. Repeat the process pressing F2 to decompress the second.

Fears (AGA only)

Fears is packed tightly to fit onto disk 118. To decompress it insert your COPY of disk 118 into the internal drive of your Amiga. Reset the machine and after a short while a loader screen will appear which asks you to type 'Go Fears' to decompress this demo. With a single blank disk ready to hand, 'type go fears' and press return. Then follow the on-screen instructions which tell you when to insert the blank disk. After it has unpacked you will be asked to insert disk 118 again. This will return you to the original loading screen. Label your new disk 'Fears demo'. To run it put this disk in your drive and reset your Amiga.

Citadel (needs 1Mb Chip RAM)

Citadel is the second demo on this disk and is also tightly packed. So it needs two swops to decompress it. Put the COPY of disk 118 in your internal drive and reboot. After a short while a screen will appear asking you to type 'go citadel' to decompress the file. With a single blank disk to hand, type 'go citadel' and press return. Then follow the on-screen instructions which tell you when to insert the blank disk. After this a prompt will appear that states 'All Done', but it isn't. This is Mat's little joke. It will ask you to return Disk 118 to the drive, so do so. This is because you have to decompress a second part of the disk. When you insert disk 118 back into the disk drive follow the prompts and wait for it to ask you to insert the blank disk again (which should already have one half of the demo on it at this stage). This time when it says 'All Done!' it means it. Replace disk 118 in the drive when prompted to and label your new disk 'Citadel demo'. To run it, simply reboot your Amiga with your new disk in the internal drive.

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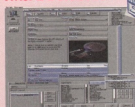


Awsome Applications



New

Twist 2 Database



Twist 2 is the highly-acclaimed relational database for all Amigas (2Mb memory recommended). With built-in Forms Designer, a beautiful user interface, versatile sorting, reporting and searching features and speed that defies belief, Twist 2 is the only Amiga database that you will not outgrow.

- Fields, records only limited by disk space
- Full picture support
- Date-type support
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- Very flexible reporting to screen, clipboard, printer

Cinema4D

An exciting new package, due for release in September at the amazingly low price of only £199.95, Cinema4D is set to revolutionise the 3D-rendering and animation market. With everything available from the one editor, running happily in 4Mb and sporting a user interface that is a joy to use, Cinema4D will stun you!



Cinema4D - it's this easy!

Sizzling Sound Samplers



ProMidi Interface

As music experts [all of these products are our own design, built and programmed in the UK], you can trust HiSoft to deliver the right package for you; a professional Midi interface, a great-value, 8-bit direct-to-disk sampler or a superb-quality 12/16-bit stereo, direct-to-disk PCMIA unit, both with superb real-time effects.



8-bit Sampler

12/16-bit Sampler



the powerful, feature-packed Aura software

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HiSoft BASIC 2

HiSoft BASIC 2 is the BASIC development system for both the serious developer and the casual programmer. Easy-to-use, based on Microsoft QuickBASIC for the PC, Workbench 2 and 3 enhanced, with a host of Amiga libraries, this is a fast, interactive compiler that feels like an interpreter. Complete with extensive manual and tutorial.

HiSoft Devpac 3

Devpac 3 is the standard assembler development system on the Amiga. Gold-rated by virtually all of the magazines, the package includes a 68000-68010 assembler, a fast linker, an integrated debugger and all with more features than most people will ever need. Complete with informative manual. Version 3.14 contains the Workbench 3 includes.

Below: HiSoft BASIC 2 in action



HighSpeed Pascal

HighSpeed Pascal is the only commercial Pascal compiler available for the Amiga and is a joy to use. Featuring Turbo Pascal 5.0 compatibility, a multi-window editing environment, incredibly-fast compilation speed (to memory or to disk), an integrated make utility for project management, Turbo Pascal units and much, much more, this is the package for anyone interested in structured programming on the Amiga.

Disk Magic



Newly released Disk Magic (screenshot on the left), is a powerful file and disk management utility that simplifies every task you perform on your Amiga so you'll wonder how you managed without it. Configure Disk Magic exactly as you want it and use the brilliant DiskDOCK, which allows button-launching for programs, ARexx scripts, etc.

Termite

Surf on the electronic highway with Termite, the ultimate comms program.

Maxon MAGIC

Great fun; a host of amusing and useful screen savers, together with a system audio manager for assigning samples to events.

Upper Disk Tools

The very best and easiest-to-use file recovery program for all Amigas.



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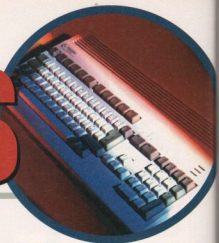
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There's More!

Here is a list of HiSoft titles for the Amiga computers (prices shown are the individual RRP): Squirrel SCSI interface - £99.95, Squirrel Storage Systems - please call, Aura 12/16 bit sampler - £99.95, Megaloud 8 bit sampler - £34.95, Pro Midi interface - £24.95, HiSoft Devpac 3.14 - £79.95, HiSoft BASIC 2 - £79.95, HighSpeed Pascal - £99.95, Gamesmith - £99.95, Tarnite - £39.95, Twist 2 database - £99.95, Mason Magic - £29.95, Upper Disk Tools - £14.95, VistaLite inc. MakePath/TerraForm - £39.95 and much more. Coming very soon: DiskMagic (disk tools) and Cinema4D.



News



Official: Amiga £399

As reported exclusively by CU Amiga Magazine last month the price point for the basic A1200 is indeed going to be £399.

Amiga Technologies' representatives at the UK's first press conference were very bullish about the machine's chances of success, despite what we viewed as a high price point. The UK's allocation of 50,000 A1200's, which is half of the total pre-Christmas production target of 100,000, has already been sold into retail outlets and distributors according to UK Sales Manager John Smith. His view is that there will not be enough Amigas available to meet demand. 38,000 of the initial 100,000 units will be shipped with the 170Mb internal hard drive configuration.

Amiga Magic!

The new Amiga pack will be called Amiga Magic and will include two games, *Whizz*, from Flair and *Pinball Mania* from 21st Century. The productivity pack, consists of *Wordworth 4 SE* (Special Edition), *Personal Paint 6.4 SE* (Special Edition), *Photogenics 1.2 SE* (Special Edition), *TurboCalc 3.5*, *DataStore 1.1* and *Digitas's Organiser*. All of the productivity packages are on current or totally new

releases. Although *Whizz* was not very well received when reviewed (CU Amiga Magazine June 1995, 55%) *Pinball Mania* promises to be a good title and the productivity software package is nothing short of superb, especially with the inclusion of the as yet unreleased *Personal Paint 6.4* and

the excellent *Photogenics 1.2*.

The big brother of the basic A1200 pack, the 170Mb hard drive version will come as standard with Scala's MM300 multimedia design package as well as the same games and productivity package as the basic unit. This will be priced at £499.

The main outlets for the Amiga will be through high street stores (possibly Dixons and others) and mail order outlets. The other surprise was that despite initial doubts (see our exclusive Jonathon Anderson interview in the August issue) the Amiga will appear in Escrom stores after all. Just how it will be sold against Escrom's own branded PCs and its Commodore Golf range of Pentiums is not quite clear.

Meanwhile rumours that Amiga Technologies have made the decision to release the most up-to-date information on Amiga product releases, strategies, price points and so on, solely to trade magazine Computer Trade Weekly (CTW) (reported in Amiga Format October 1995) were laid to rest at the press conference when it was confirmed that CU Amiga Magazine actually had pricing and distribution news (in our August interview) before anyone else, even CTW.

According to Jonathon Anderson this isn't official policy but the trade have a right to know too: "CTW is a weekly magazine and the Amiga specific magazines are monthly. We are not going to hold back information from CTW just to give it to the Amiga mags first", he said. The solution seems simple: read CU Amiga Magazine!



New Amiga monitor

Take another look at our picture on page 18. No, your eyes do not deceive you, Amiga Technologies have announced a new Amiga monitor to go on sale at the same time as the A1200 and A4000T. Although the monitor we had access to for the above photograph was not the final specification it is very similar, the AT version being a multi-sync monitor with a scan rate of 15 to 38KHz and based on an existing UK manufacturer's product. Internal speakers are expected. No price has been announced yet but Amiga Technologies stress that it will be their product, fully matched to and compatible with all Amigas that have an RGB port, and will be competitively priced. All those 'which monitor to upgrade to?' headaches could be solved very soon.

Virtually useless?



Hopes were raised and dashed in seconds at the Amiga Technologies press conference in August when Virtual Products* (a partner company of Ecom) virtual i-glasses were first revealed.

The latest, and potentially the best virtual reality headset around was touted as 'working on the Amiga' but in fact has little real use beyond potential 3D development

and video applications.

The glasses are available in two forms: PC and video. The PC version gives access to a genuine virtual world with headset sensors detecting movement and translating this onto screen. These will retail at a staggering £899. There are apparently tons of games in development for this. The video version will work directly off the Amiga 1200's composite output and will give stereo vision, but no games are currently in development for it and it does not have the sensor pack, in reality turning it into little more than a 3D very personal monitor. It costs £599 too: £200 more than a basic Amiga.

Although a movement sensor upgrade is potentially

available for the Amiga, none we spoke to thought games and applications would be developed for this in the current climate. If you bought it you would be able to watch 3D videos though, of which there are allegedly rather a lot in production. But £600?



Ken gets first prize



Winner of first prize (an A1200 plus a years free subscription to CU Amiga Magazine) in our A1200 competition, Ken Theobald from Essex.

We had to nail him to the spot to take these pictures - once he had met the team Ken was eager to get home quickly and start using his prize.

A regular reader of CU Amiga Magazine, he's now a permanent one!

Final Writer 4 release

Softwood's long awaited *Final Writer* update to version 4 has just been announced by UK distributors Gordon Harwood.

Out of the extensive list of improvements and new features, the intelligent grammar correction is perhaps the most impressive. Known as CorrectText GCS, the grammar correction engine has been licenced from InfoSoft who have had the product under development for many years.

The user interface has also received a major update, making it easier to use and more intuitive. Font styles, for example, may be set from a special tool-bar indicating the status of the text at the current cursor position.

For further information about the new features and the release date of *Final Writer 4* contact Gordon Harwood, tel: 0117-836 781.

Or failing that wait until next month's issue of CU Amiga Magazine to get all the facts and the lowdown on this new product as we should have a full review.

Migraph goes multi-pass

Golden Image UK has announced details of a new version of its popular Migraph Optical Character Recognition software, version 1.52.

Previously it was necessary to scan each page and convert to text each time. Now with the new version it's possible to make three consecutive scans and then batch convert to ASCII saving much work.

The Multi-pass 1.52 version retails for £49.95 and the standard 1.45 version for £35.00. Call Golden Image on 0181-900 9291 for more details.

World of Amiga 2

There is a possibility that the World Of Amiga Show, first held last December, will be repeated in November of this year. Following a similar format to last year's show it could be a much bigger event following the re-launch of the Amiga. Although no firm details have been released about who will be there it's worth watching out for.

CU Amiga Magazine will print more details as they come in.

Apology

Apologies to both Epic and Active for an error in our feature on pornography and sex in the computer industry last month. We quoted the Adult Sensations CD as being from Active's catalogue. It was actually Epic who sent us both the Adult Sensations CD and Cover Girl Strip Poker.

Epson Color Stylus and Canon drivers

Eyetech have announced the availability of the Endicor V2.0 driver for Epson Color Stylus printers, featuring 24-bit printing support, three modes of colour correction, greyscale mode and a full friendly calibration utility with built-in instructions. An essential product for Epson Stylus owners wanting to get the most out of their Amiga print outs.

Version 2.1 is currently under development which is the Canon BJC600 and BJC4000 version.

Owners of those printers might like to call Eyetech on 01642-713-185 or E-Mail eyetech@cx.compulink.co.uk to find out where it's at.

New Apollo A1200 & A4000 68040 accelerators

Visage Computers have announced that they will be distributing the Apollo 1240 and 4040 range of accelerators. The A1200 version is based on a new low power 68040 clocked at 33MHz and features a built-in SCSI-2 controller operating at up to 3.5Mb/s. The use of this new 68040 CPU type, designated the 'SLC' series, will mean that it runs much cooler than the old 68040 chips running at 25MHz. Good news for the cramped A1200 trapdoor which is prone to overheating even with 68030 based accelerators.

The brother of the 1240 for big-box Amigas is the 4040, again with built-in SCSI-2. The primary difference is that it sports 4 72-pin SIMM sockets where the 1240 has one and it comes in 28, 33 and 40MHz versions. Great news also for A3000 users. The 4040 has been constructed in such a way that it will also fit inside the cramped A3000 to provide a significant speed boost. CU Amiga Magazine is on track to bring you a full review of the Apollo 68040 range next month. Those who can't wait should call Visage on 0115-964-2828 for more information.

A bit of a gamble?

Into poker? Can't afford to go to Las Vegas? Then Desert Star might have the solution. Might. *Hollywood Hustler* is supposed to be a genuine, challenging poker game with a difference. The difference is that it contains some very seedy digitised characters. Not the sort you'd invite over for tea and bikkies, but our gambling consultant reckons they're pretty accurate for gambling halls around the world. How good a poker engine it is remains to be seen.



Falcon 040 may soon fly in

Sources close to Macro-Systems told CU Amiga Magazine that a deal was being struck with a major UK based distributor to license the Falcon '040 A1200 accelerator. Having already received good press in Danish Amiga magazines, the unit has yet to find a UK distributor allegedly due to the high price point. The UK deal is said to involve manufacture in the UK in order to reduce the end cost. Like the Apollo 1240, it's based on the low power 68040 CPU which solves the heat problem that prohibited A1200 68040 accelerator design in the past. CU Amiga Magazine will endeavour to secure a review of the Falcon 040 under its new guise when and if the rumours prove to be true.

Player Manager 2 goes 256

Player Manager 2 is about to be re-released in AGA form with 256 colour graphics and on disks. All of the menu screens have been overhauled and several additions have been made like press conferences, highlights of matches, faster gameplay in playing mode and varying weather conditions. Due in October we'll give you more info when we see a working version. Screenshots are from the AGA version.



Demon DiSpatches snub the Amiga

Demon Internet Services' new quarterly paper based magazine, Demon DiSpatches, doesn't feature one mention of the Amiga at all. As the largest UK provider, they are the only Internet provider to offer support for the Amiga even going as far to provide local newsgroups for Amiga users.

So it came as a surprise that there was no mention of Amiga users, the survey page didn't even possess a choice for owning an Amiga computer. Seems that you either own a 386 PC, 486 PC, Pentium PC, 68000 Mac or a Power Mac which leaves Amiga users to tick the box marked 'other'. We were quick to protest this oversight as Demon are also our net provider. Why not send them an E-mail to magazine@demon.net to set them straight?

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Matt Broughton's Games in View

After £200 worth of phone calls and four weeks hard work here's this month's games news ...

Mornin'. Bit quiet this month I'm afraid. Lots of companies seem to be loosening up a bit as far as Amiga releases go, but many are still holding back until the Escom solution becomes more apparent. Machines are, so we're told, going to be available soon, but after a couple of years being told that "everything will be back to normal next week" most developers are understandably reluctant to pump wads of cash back into the Amiga scene.

Fans of **Frontier** are once again put on hold, as **Gametek** announce that they are yet another company waiting to see what becomes of the Amiga. **Frontier: First Encounters** was due to arrive about now, but has been put on ice until Amiga Technologies deliver machines to the shops and actually sell a few of them. However, the other Amiga 1200 Gametek title, **Star Crusader**, is currently being finished off and there's even a rumour that, following its success in the PC market, Gametek may look into producing an Amiga version of **Super Street Fighter 2 Turbo**. Could be interesting ...



▲ **Super League Manager CD32** is on course for the end of August.

Rasputin Software are still quoting November as a release date (well, month really) for the graphic adventure, **Limbo of the Lost**, while the compilation, **Trif Fik** (aha ha!) will rear its head later on in the year. This bundle will feature the 'top titles' **Charlie J Cool**, **Quiz It**, and **Monster Machines** - retailing at around £20. Er ... can't wait.

Audiogenic have been a busy bunch, with a batch of new projects on the boil, along with some imminent releases. The excellent **Exile** will be in the shops from early September, with both **A1200** and **CD32** versions being released simultaneously. **Odyssey** will also be out for all 1Mb Amigas from mid-September, and though a

price has yet to be confirmed, you should be able to pick up a copy for around the £25.99 mark.

Never ones to miss out on ANOTHER cricket game, the Audiogens have a new variation on their famous cash cow, this time with a planned Imran Khan licence (although this has yet to be confirmed). Peter Calver assures me that, while **Brian Lara's Cricket** was just the same old game with a new box and some fresh artwork, this release will be a total rework. That said, the graphics are much the same, but the fielding and batting code has been completely rewritten. For the first time (in an Audiogenic cricket game anyway) the player will have the option to control the fielding, although the development team have actually had to handicap the computer fielders because they were too good! There will also be the inclusion of a 'six button batting mode', whereby using combinations of joystick directions and the fire button, the player will have a greater choice of strokes available. This is mainly just a boost in strength, but, well, variety is the spice of life (or something).

Audiogenic (you can see who I've spent most of my time on the

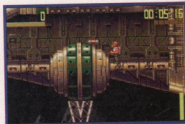


▲ **Sung** isn't the word. Matt's in New York and he wants you to know it.

phone to this month can't you?) also have a brand new tennis game. Currently unnamed, it takes the traditional view-point from behind and above the player, aiming to be more of a 'fun' game than a serious sports simulation. A release date is as yet undecided, but the project is moving at a fair pace. Look out for more preview material in next month's issue.

One last bit of news from Audio: is that the CD32 version of **Super League Manager** will finally be released at the end of August following concern over the Commodore situation (sounds familiar) and the validity of releasing CD32 products. Still, all's well that ends well, eh? Until next month ... ■

▼ Expect to see **Exile** in the shops early September.



Star Crusader - coming soon.



HMV CHART ... Amiga top games

No	TITLE	PUBLISHER
1	Player Manger 2	Virgin
2	Sensible Golf	Virgin
3	Sensible World Of Soccer	Virgin
4	Super Skidmarks	Guildhall
5	Gloom	Guildhall
6	Super Street Fighter 2	US Gold
7	Graeme Gooch World Class	IDK
8	Indiana Jones Atlantis	US Gold
9	Ultimate Soccer Manager	Daze
10	Beau Jolly Compilation	Virgin

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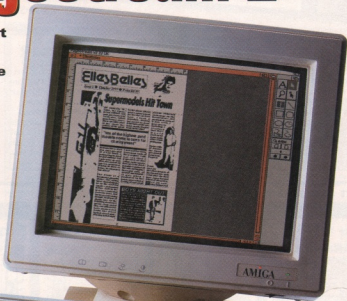
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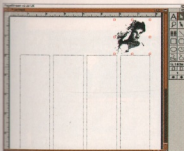


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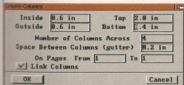
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▲ Once you have created the four columns, place a picture in the top right corner of the page by choosing the File/Import Graphic menu item.



▲ When columns are required for your text, you can choose the Layout/Create Columns menu item which will bring up this panel for you to configure.

1) Creating a page

With all the elements at the ready, the first task is to run *PageStream* and create an A4 page. This can be done by choosing New from the File menu. Now comes the hard part, filling the blank page. In most cases, this difficulty can be overcome with a rough sketch of how you want the page to look. The design can be something you create in your head or a copy of one you've seen elsewhere. Another method that works for many, is to make paper cut outs of the different elements that make up the page and position them until they fit together like a jigsaw. Most designers have different ways of handling the initial task of creating the design, so don't be too worried if yours is different to the methods mentioned.

2) Structured pages

Before we go anywhere with our page, a grid is needed. Not the grid listed in the Layout menu which is a series of dots that is used for aligning objects. The grid needed here is

some columns laid out on the page which dictates how wide the text blocks will be and where pictures are to be placed on the page. You don't have to stick to a grid like this but it makes the job much easier.

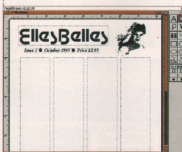
In this example, I've used the Create Columns function in the Layout menu to make four columns that visually divide the page into four vertical sections. If after you have created your columns, you can't see them on the page, make sure that the Show Column Outline item is ticked in the View menu.

Before creating the masthead, use one of the many keyboard short-cuts to zoom in on the top of the page. By pressing the Right [Amiga key and then while holding that down, pressing the number 6 key, the page will be magnified so its width fills the screen.

3) Making a masthead

The front page has a large top margin to accommodate the masthead, which is the title of the newsletter. The masthead can be created in an art package or in *PageStream* itself. The example here was done in *PageStream* 2 using the text tool to create the words 'EllesBelles' and match them to a picture on the right of the text.

Here's how you can do it. With the Pointer tool selected, choose the File menu item, Import/Graphic. Import/Text will be ghosted because you have the Pointer tool selected. Use the file requester to choose your picture. Another panel will appear, this time asking you



▲ The masthead for our example document consists of two text objects and a picture. To create the text, choose the text tool, select the text and then type the text on your page.

Creating Page Numbers

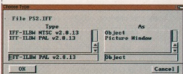
Most documents require a page number and *PageStream* 2 lets you create them with a minimum of fuss. Stamp the text tool on the page and choose Layout/Insert Page Number. Told you it was easy! Page numbers can also be inserted into Column boxes.

To choose the type of picture and object you want. For now, stick to using the PAL IFF-ILBM filter and Object. When you click OK, the image will be imported and a square pointer will appear.

This is the signal for you to tell *PageStream* where you want the picture. If you just click once on the page, the image will be positioned at its default size. If however, you click and hold the left mouse button down, you can drag out the area on the page you want the image to occupy. Choose one of these methods and then place the image on the top right of the page. Make sure the picture is in the correct place, and not overlapping the four empty columns.

Choose the Text tool and then the Fonts/Points item in the Style menu. The Set Font panel appears. Choose your font, style and point size. Once you have made your choices, click OK and then stamp the text tool down on the top of the page. You can now type out your heading and when finished, choose the Pointer tool.

The first thing you should notice is that the box now has a set of eight handles. This tells you the box is active. While a box is active, it can be sized and moved. Chances are, your box will need to be moved so that the left hand side lines up with the edge of the left column. Stretch the text if necessary by first grabbing a



▲ To start off, import pictures as Objects. We'll look at the other options that are available to you in future issues. There are various file formats for you to choose from.



▲ Now we outline exactly where we want to put a legend in the bottom corner.



▲ Changing background colour and the text weight/colour makes a nice contrast.



▲ With all the other bits in place we can import our body copy.



▲ A nice pale quads finishes the page off, giving it a professional air.



▲ Finally, make a print out of the page and proof it for errors. Carefully.

handle using the left mouse button. While holding down the left mouse button, drag the handle to make the text bigger.

All that should take around ten minutes, which means it's a good time to save your document. At the moment it's untitled, so you need to choose Save As from the file menu, give the file a name and save it to disk. Don't save the file to RAM, because if your Amiga crashes or there's a power cut, you'll lose your work.

The last part of the jigsaw that goes to make up the masthead is a line of text underneath the main heading. This too can be created using the text tool in the same way the masthead was made, but make sure you select the font and the size before stamping down the text tool. In the example here, I've used Garamond, 18 point.

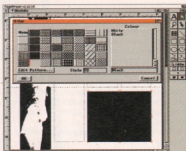
3) Stretching things

We saw earlier that it's possible to stretch your text but that's not all you can alter. Pictures can be stretched too. With the masthead finished, let's delete the left most column and put a picture in its place. There are two ways to approach this.

The first is to import a picture like we did earlier and simply size it so that it matches the column it replaces. That's a bit untidy though

Picture Formats

PageStream 2 can import a number of different formats including the following: IFF-ILBM, IMG, TIFF, MacPaint, GIF, DR2D, ProDraw clips, GEM metafiles and EPS.

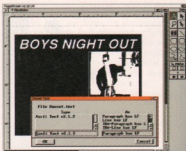


▲ Use the Fill Style panel to fill a box with a coloured or nice patterned background.

and it doesn't give me an opportunity to show you how you can use Guides (non-printing lines that you can use to help in the positioning of objects).

Magnify the page so you can clearly see the first column and where it lines up with the ruler. Now move the Pointer to the ruler and where the column outline intersects the ruler, click on the ruler. A vertical Guide (dotted line) will be placed on the page at the point you clicked on the ruler. This guide can be removed by clicking in the same spot on the ruler. If you now click on the left-hand column to select it and then press Delete, the column will disappear, leaving the two guides in its place. These can now be used for positioning the picture.

Import a picture and place it in the space between the two guides, making sure the image stretches to the bottom of the page. Don't worry if your ink-jet won't print to the bottom of the paper because, by using a bit of



▲ When you import some text, you get the option of the line feeds falling at the end of each line or at the end of paragraphs.

trickery, you can overcome this. If you've got an inkjet printer try using a Post-it note (one of those sticky yellow message posters), to attach a narrow strip to the bottom of your sheet of paper and after it's printed, remove the strip of paper. This fools the printer into printing right to the bottom of the page. I don't know if it will work with a laser printer or a dot matrix though.

Now to create a large heading that stretches across the three remaining columns. Before you can do this you'll need to lower the columns to make a space for the heading. Do this by grabbing the middle handles on each of the columns. It's also worth turning on the Snap to Guides option and using a horizontal guide to make sure the tops of the columns all line up. Ensure that when you place the heading on the page, that the top of the heading is aligned with the top of the picture now running down the left-hand side of the page.

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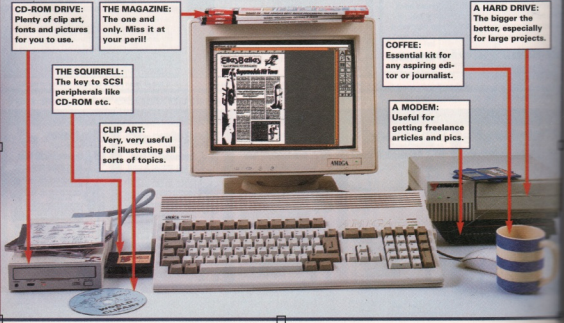
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▲ This boxset consists of a number of WOBs, a term that stands for White On Black.

4) White out

Now move to the bottom of the page where we'll look at doing a WOB boxout (White text on a Black background). The columns on the right of the page need to be shortened to make way for the boxout. The boxout will consist of a smaller piece of text with its own heading, a picture and small story. Don't forget to use a horizontal guide to make sure you get the bottoms of the columns to line up.

Once the space is created for the boxout, click on the Box tool and draw a box two columns wide. With the box still selected, choose Object/Fill Style. In the text gadget next to Style, type in 9 and make sure Black is the selected colour. This black box is to contain a picture on the right and a headline at the top of some text. Adding the picture and headline is very straightforward.

One area we haven't covered yet is filling a box with text. Choose the Column tool and draw a box to fill the space left after the headline and picture have been added. With the box still selected, press Right Amiga H and make sure the Fill Style selected is None. Now choose the Text tool and click inside the box you just created. Unlike before when you created your text by stamping the Text tool on the page, if you enter text into a Column box, the text can't be stretched when you resize the box.

Choose File/Import Text and choose a small text file. When the text appears in the frame, choose Edit/Select All or press Right Amiga A. To change the text to the colour White, press Right Amiga H to bring up the Fill Style panel. Click on Style 9 and make sure the colour chosen is White. The rest of the text is formatted using the functions in the Style and Format menu. A better way is to use a Style tag because these let you apply lots of attributes to a piece of text quickly. We'll be looking at this function in-depth in further tutorials to follow in CU Amiga. So don't go away!

5) Pull quotes

To top it all off, we have two more objects to add. The first is a Pull Quote. This is the large text surrounded by two thick horizontal lines.

Create a box on the artboard for the text using the Column Tool. Start the text one line down from the top of the box by pressing the return key before starting your text. Now make sure the text box is active and choose Object/Text Runaround. In the Text Runaround panel, click on the icon that has



▲ Before you can place the pull quote on the page, you need to make sure the box will displace the text that will fall underneath it. You do this by selecting Text Runaround from the Object menu.

the text flowing top and bottom only and click OK. With that done, place the box on the page and watch the text get pushed out from under the box. Add two thick lines and the pull quote is done.

6) Runaround text

Our last task is to add an image on the right of the page so I can show how you to flow text around an irregular shaped object. First import a picture, preferably one with a white background so the text can flow over parts of it without getting lost in the image. When the picture first appears, it will cover the text, so choose Object/Send to Back.

Click on the Polygon tool and create an outline around the main area of the image. Make sure you close the Polygon by clicking twice near where you started it. With the shape still active, choose Object/Text Runaround and click on the icon where the text flows around three sides.

Finally, because you don't want the line to be seen, choose Object/Line Style and select no line weight.

You should now have a stunning looking page that you can play with and make your own. Don't forget to stay with CU Amiga over the next few months as we bring you even more in-depth tutorials to help you get the most from this superb package. ■

Larry Hickmont

If you have any queries on these or other tutorials, you can E-mail Larry at larry@em.power.net.co.uk or write to Larry Hickmont, 13 Gairloch Ave, Bletchley MK2 3DH.



▲ Once you have created a closed polygon using the Polygon tool, you can use Text Runaround to make sure that it pushes the text away from the picture it surrounds.

Jargon busters

COLUMN TOOL: Located in the tool-box, this tool lets you create boxes for holding text that can be typed on the page or imported from disk.

DOUBLE SIDED DOCUMENT: A document which has left and right master pages. An example would be a multi-page newsletter.

FILL STYLE: Objects can be filled with a pattern or solid fill. These fills can also be different colours, giving you a number of options to play with when wanting to fill boxes on the page.

GUIDES: Non-printing lines that can be used for aligning elements on the page.

GUTTER: The space between columns of text.

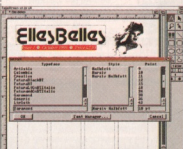
LINE SPACING: The white space between lines of text.

MASTER PAGE: Page/s which can be used to base others on.

TAG: A set of text formatting attributes that can be applied in the one operation.

TEXT ROUTING: The Layout menu item, Set Text Routing, lets you link columns of text so it flows from one column to another.

TEXT RUNAROUND: A feature in PageStream 2 which lets you push text away from objects so it flows around elements and not over them.



▲ To format a block of text, first select it using the mouse and then bring up the Set Font panel by pressing Ctrl-F. You can now choose the required attributes.

Next month

Get your stationery here! Next month we start the first of five tutorials showing you everything you need to know about creating your own personalised stationery pack with PageStream 2. To kick off this series, we'll be looking at how to set up different size pages, grids and various types of layouts. Don't miss it.

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SCSI INTERFACE

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FOR A600/A1200



Named after the famous storage hungry animal, the Squirrel SCSI-2 interface simply plugs into the PCMCIA slot (supplying warranty protection) and drives you to connect up to 7 SCSI drives to your Amiga at the same time. This could be any combination of hard drives, SCSI CD-ROM drives, tape drives, hard disk removable drives, etc.

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Storage Solutions

Mass storage was once a luxury enjoyed by few Amiga users. Thanks to recent developments, next generation disk drives are with us already, offering massive storage capacities at affordable prices.

It's marvellous to own a computer capable of many wonderful things. Desktop publishing, 3D rendering, image processing, sound sampling and net surfing all have one thing in common: they all need somewhere to store their data. Amiga data storage used to be confined mainly to floppy and hard disks, but now there are plenty of mass storage devices ranging in speed, capacity and portability.

With so many choices, the hardest part is deciding which storage device best suits your needs. Do you go for the biggest drive you can afford? Should your device be portable? Is access speed important? Maybe compatibility with other platforms is a requirement. To help you make the right choice, we've compiled a number of case studies, typical of the kind of questions we're often asked.

For an overview of the contenders, check the specification chart to see which drives shape up to your requirements.

"I've got a stock A1200. I don't have much money but I want some sort of drive. I mainly play games and I don't want to swap disks all the time."

If all you want to do is play a few games without using floppies, you should go for an internal hard drive. If you don't intend storing

anything else much on it, it needn't be a large drive. However, recently there's not much of a price difference between a small drive and a larger one.

You can either choose a 2.5" or 3.5" IDE hard drive. The A1200 comes with a cradle to house a 2.5" drive. No special cables are needed and there's plenty of room for it inside the case. A dealer will fit this for you if you aren't happy with opening your machine at all. Alternatively you could try a cheaper and faster 3.5" unit which will need some

special cables installed. If you're handy with a screwdriver, you could consider doing it yourself and just buying the drive and cable kit from a dealer. Have a look at some dealer advertisements in this magazine for a solution to suit your pocket. Often dealers will sell the drive with many megabytes of PD software pre-loaded on it for no extra charge.

"I need to be able to transfer large files (that won't fit onto floppies) between my

New Developments

With the old SyQuest monopoly shattered by the arrival of the Iomega Zip drive, SyQuest's next move was to introduce some form of real competition. That competition comes in the form of a new drive called the "EZ135", though unlike the Zip it doesn't use optical technology. It is a standard 3.5" removable hard drive system based in the 270Mb unit only it is single sided with a capacity of 135Mb.

Interestingly, the cost of the media is touted around the £16 mark, which is puzzling as the doubled sided version of exactly the same cartridge has been going for £56 and more. So either the EZ135 media is a exercise in massive cost reduction or SyQuest were getting away with an inflated price tag while they had the monopoly. Either way the new drive looks inviting considering the low media cost and the much faster transfer speeds than the Iomega Zip, making it suitable for scratch-pad storage too. CU Amiga Magazine will bring you a review very soon.

Iomega are planning to follow their Zip success with a new 'secret' drive known as the 'Jaz'. Prototypes are with key Stateside distributors already. Thought to be based on the same technology as the Zip, the Jaz goes much further with a storage capacity of around 1 gigabyte and a much improved transfer speed.



▲ The mighty MultiData machine. Seen here with a CD-ROM in place, the caddy also takes the 650Mb optical cartridge shown on top of the unit. The MultiData drive represented the lowest price per megabyte cost.

A1200, PCs and Apple Macs. How can I get them all talking to each other?

You're one of the large group of people for whom the new Zip drive is ideally suited. It's compact, fast and cheap. Not only are the disks easily transportable but so is the entire drive since it weighs less than half a kilo. You'll need a SCSI interface too. HiSoft's Squirrel is

ideal, and the two together will cost around £250. Extra blank 100Mb Zip disks cost around £13. Using CrossDos or CrossMac, you can format disks in MS-DOS or Mac format to be read on all systems. The Zip drive can then be attached to the SCSI interface of any Mac or PC.

"The small 20Mb hard drive



▲ The humble 3.5" Boppy drive, dwarfed by modern developments.

in my A590 box on my A500 is not big enough. Could I plug in an accelerator with a bigger hard drive and still use my trusty A590?"

Firstly, if you purchase an A500 accelerator HD combo, it will have to plug into expansion slot and there's no way to continue using the A590. Alternatively, you could attach an external SCSI hard drive box to the SCSI plug on the back of the A590 though it's a bit on the slow side. A brand new accelerator come hard drive box would have enough storage space for you to discard the slow 20Mb drive anyway. Alternatively, you could buy a new A1200 with a hard drive now that they're shortly due to go back on sale under Escom's new management. That will solve your accelerator problems and bring you up to date

SCSI versus IDE - the fight is on

The Small Systems Computer Interface is the most widely spread standard for connection of mass storage devices. The ability of SCSI to manage seven devices off the same interface is a big advantage over IDE. Several devices aren't available in anything other than SCSI at this time.

A common misconception is that SCSI is faster than IDE. It isn't. It's just that add-on SCSI interfaces tend to pull out all the stops for speed (at a cost) however, it still is an 8-bit transfer standard as is SCSI-2, unlike SCSI 'wide' which doesn't exist on the Amiga yet. IDE has the advantage of simpler drive electronics leading to cheaper controllers and drives. Very fast 3.5" IDE drives now cost very little indeed. Also with the new Amiga ATAPI EIDE software, it's now possible to connect up to four devices to the A600, A1200 and A4000 internal IDE interfaces. An accelerated A1200 is capable of shifting up to 2.5Mb/s when used with a fast hard drive - faster than the Squirrel SCSI card will normally perform. For big box Amigas, SCSI cards that offer Direct Memory Access (DMA) have the advantage of low CPU usage whilst transferring data. The DKB4091 and Z3 Fastlane Zorro III controllers are the fastest controllers on the Amiga, supporting the SCSI-2 'fast' subset of the standard

as well as the much faster 32-bit Zorro III slots of A3000 and A4000s. For most people considering SCSI over IDE, the major considerations are:

- Does the device you need to connect only come in SCSI?
- Will you ever need to connect more devices?
- If you own an A600/1200, would it be a problem to run IDE leads out of your machine into an expansion box?

If you answered yes to any of those questions, a SCSI interface seems like the order of the day. Big box Amiga users are spoiled for choice with a plethora of cards available. The Octagon 2/4008 is a particularly good card for speed and software support with one of the better drivers that understands the essential Commodore Rigid Disk Block standard. It also has sockets for 8Mb of memory. Costing £129, it can be obtained from Gasteiner on 0181-345-6000. On the A1200 side, the Squirrel is still the best option if your PCMCIA port is free. It costs £69.95 from Hi-Soft on 01525-718181.

If you answered 'No' to all of those questions and have an IDE equipped machine, be happy. It seems you can make do with your Amiga's internal IDE port. That leaves more money to spend on your storage devices.

with the AGA chip-set too.

"My internal 250Mb hard drive is getting full so I need another, but I also want a CD-ROM for my A1200. Can I add both or will I have to replace my 250Mb drive with a larger internal one and buy an Overdrive type unit?"

There are a few options here. Indeed replacing your 250Mb unit is an option though you might like to check out the Multimedia Station tower review on page 74. You could relocate your 250Mb HD to the tower and add an IDE CD-ROM into it. There would still be plenty of room for another drive in the tower when needed. Alternatively, you could go the way of the Squirrel and loop a SCSI cable from an external CD-ROM to an external HD box. However, it may not be the tidiest of solutions and it will be more expensive than the tower option.

"I want to add a CD-ROM to the drive bay of my A4000. Should I go for the IDE Tandem card or a more expensive SCSI card?"

With the advent of the ATAPI package (see page 74), there's no need to buy the Tandem card if you want to add an IDE CD-ROM. With this software your internal IDE interface will suffice nicely. It would even be possible to buy a device lead and add another HD (if you know the jumpers to set master/slave operation) as well as the CD-ROM. This would be a cheaper solution since no interface or SCSI version of the CD-ROM needs to be bought. However, if you're thinking of adding external devices at some stage, it may well pay to invest in SCSI capability. Then again, you could always get a SCSI card when that problem arises.

"I have an A3000 and really large animations. There are then spooled out off a 270Mb SyQuest and recommended to tape. The SyQuest cartridges are expensive. I am prepared to put up with a performance loss for a cheaper mass storage medium. Streamers are impractical since I need random access."

The SyQuest cartridges are indeed very expensive. Fourth Level's new MultiData drive based on the Panasonic 'PD' optical drive may be just the thing you need. Check out page 78 for the review this month. It's not very

quick at writing but the cartridges are cheaper than a SyQuest 270Mb cart and they store a whopping 650Mb which is seven pence per megabyte. For spooling off, they read at nearly 1MB/s so this may be exactly what you need and of course they are random access and work perfectly with your A3000's SCSI. As an added bonus, it doubles as a quad speed CD-ROM when needed.

"I own an A4000 and want to record video direct to disk which I want to edit later and then re-record. What kind of hardware would I need? Could I store this on a Zip drive?"

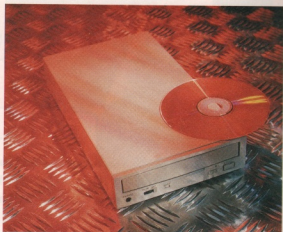
That's not an easy thing to do. If digitising at a measly 320 x 256 at 256 colours, it's still over 2Mb per second that needs to be recorded. The Zip manages 1Mb/s on a good day. Whilst many cheap hard drives and controllers can manage this during raw bursts, a continual read/write to disk usually results in lower performance. Then there's the hardware needed to grab at that rate. Currently, the solution is to use some specialised hardware that does some compression on the video. DPS Par and the Digital Broadcaster are a couple of examples. Then a very

fast Zorro III controller is needed such as the Z3 Fastlane or the DKB4091 coupled with another very fast 'AV' rated hard drive. The 'AV' is a term used to describe a drive capable of very high performance demanded by this kind of audio-visual application. Obviously you're talking about a lot of money here. Best to assess how much you're willing to spend and talk to one of the dealers that specialise in high end equipment.

"My Overdrive is currently occupying my PCMCIA slot. How do I add a CD-ROM from here? My accelerator doesn't have provision for a SCSI interface, so will I have to replace the card with a SCSI-equipped alternative?"

No. There are two ways you can go. Obtain a long IDE cable, trail it out of your A1200 from your IDE interface and plug it into a cheap IDE CD-ROM. You'd have to find housing for this drive and get a copy of the ATAPI package so you can use it with your IDE port. Alternatively there's a new product known as the Dataflyer. This interesting product plugs into your IDE connector inside your A1200 and provides a SCSI socket on the rear of your machine by using that blank socket panel. It's not very quick but it would be perfectly adequate for a CD-ROM. It's not cheap, at £70 from Siren Software on 0161-7965279, but it will at least allow you to use a standard external SCSI CD-ROM as provided by Power Computing and the

◀ The brilliant Imago Zip 100 beats the archaic 640MB Syquest (shown below) in speed, size and cost.



▲ A Power Computing deal speed SCSI CD-ROM. Just one of the plethora of devices that can be attached to the versatile SCSI bus.

like. That may save you some wiring headaches that the ATAPI solution will provide.

"I run a big BBS and mail system on an A1200 with an Overdrive CD and a 540Mb internal drive. I need to add a big fast hard drive and some serious acceleration to my expanding system. What do you recommend?"

An Apollo 1230 from Visage on 0115-964 282 will not only give you a major speed boost but also provide a very fast SCSI interface to

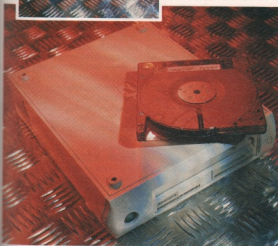
boot. Since speed is of a major concern, this is the better option over the Dataflyer which tends to be fairly slow. The Phase 5 Blizzard 1230 range also has provision for SCSI, though it comes as an extra expense in the form of a small add-on daughter board. All you need then is an external HD box attached to the SCSI port on the back of your machine.

So many data storage devices but, don't worry, there's lots of time to look around for one that suits you. ■

Mat Bettinson



◀ The brilliant Imago Zip 100 beats the archaic 640MB Syquest (shown below) in speed, size and cost.



▲ The removable media of yesterday. Believe it or not, these sleek Syquest cartridges cost as much per megabyte as high density floppies.

	Drive Cost Internal version	Drive Cost External version	Capacity	Media Costs per unit	Price per Megabyte of storage	Read Speed	Write Speed (if known)
DD Floppy	£35	£50	800K	80p	90p	23K/s	12K/s
HD Floppy	£85	£90	1.76M	90p	51p	23K/s	12K/s
ED Floppy	N/A	£130	3.5M	90p	26p	23K/s	12K/s
Syquest 88	£189	£259	80M	£40	45p	1MB/s (approx)	—
Syquest 105	£199	£279	105M	£44	42p	—	—
Syquest 200	£299	£379	200M	£59	30p	—	—
Syquest 270	£299	£399	270M	£56	21p	—	—
*Syquest EZ	£182	£205	135M	£16	11p	2MB/s (approx)	—
**Imago Zip	N/A	£189	100M	£13	13p	840K/s	800K/s
**MultiData	£599	£644	650M	£50	8p	800K/s	335K/s
**MD-Miga	£1527	£1605	1.3Gig	£50	4p	800K/s	335K/s

* Not available at time of press.

** Benchmarked with the Ami-FileSafe filesystem since it's handled with these units from Fourth Level.

Here's where you can get your hands on these goodies:

FLOPPY DRIVES available from Power Computing 01234 370000

SYQUEST DRIVES available from Gastineer 0181 3456000

MULTIDATA & ZIP DRIVE available from Fourth Level Developments 0117 985 4455

SQUIRREL SCSI INTERFACE available from HiSoft 01525 718181

Spirit of the Pharaoh

Having worked with high tech equipment on programs such as the Making of Michael's Jackson's Moonwalker, Terry Jarvis explains why he chose the Amiga for his latest project.

I just wanted to create characters that could come off the page of a comic book and come to life, a bit like they're doing now with Judge Dredd, the Mask, Batman, Dark Knight and Casper." Terry Jarvis says confidently of his latest project, *Spirit of the Pharaoh*.

Terry has worked in broadcasting for many years now with people such as Michael Jackson, Prince, Stevie Wonder and The Pet Shop Boys. He has also worked with incredible expensive equipment but for his own company's first production he chose the Amiga to bring his characters to the silver screen. He told us exactly why...

Spirit of the Pharaoh is a culmination of Terry Jarvis' childhood doodlings and fantasies. It is an animated adventure with comic characters all created and illustrated by Jarvis himself. Currently on video (but there are plans to make it into a game) *Spirit of the Pharaoh's* hero is a young hip hop star Raymund



▲ Terry takes some time to chat before the screening of *Spirit of the Pharaoh* begins.

whose body is taken over by Ra'mun, an ancient Egyptian, in a bid to battle the evil God of chaos Seth.

This project is a twofold landmark for him. First it is a return back to his first love - comics. "My real love is in comic books. I first started on comic books and

I love everything from the writing to the illustration. I helped start the first British Comic Book Price Guide and one of the first high street shops selling comic books and of memorabilia."

Secondly, *Spirit of the Pharaoh* is the first project to be produced by his newly formed company Future Promises.

"Future Promises is a company that I started outside of my TV activities to work on

new product developments, my TV activities being that I worked for the BBC for 12 years and did things from the making of Michael Jackson's video, Brit Awards and a lot of news and current affairs programming."

Amiga's role

Despite having access to mega expensive equipment, Jarvis chose to work with the Amiga because of its ability to produce the goods at a reasonable cost.

"I come from broadcasting, where we never even used to look at an Amiga until we heard what people were doing with the Amigas. Now when you look at most independent producers they're using Amigas because of the flexibility and the cost. I've used some of the most expensive pieces of hardware you can imagine and I wasn't as happy as I am on an Amiga because it's not about how sophisticated or clever the machine is, it's about



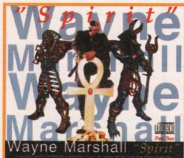
the power of one's imagination. If you can translate ideas with an equipment that is affordable, then you don't really need to go and spend £90,000 worth of equipment."

So how did he hear about the Amiga? "I was sold on the Amiga by a company called Alternative Image. Henri Buiko one of the directors there sent me down some work that he'd done through a mutual friend of ours, and I was very impressed by what he'd done on the Amiga. Mike Adams, who is the mutual friend was very much into putting sound together, and once they'd combined the artwork and the sound it was amazing how much the image had come to life."

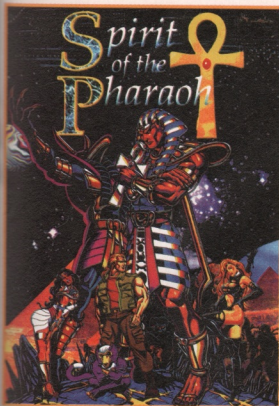
For the people

Jarvis is also very impressed with how the Amiga is making animation available to more people than before and thinks that it will help the animation industry as it has done the music industry

"It (the affordability of the Amiga) reminds me of the record industry in a lot of ways. In the



▲ The backing music to *Spirit of the Pharaoh* is set on Soultron records performed by Wayne Marshall, a well known soul artist.



solid days it was so prohibitive to go into a studio and make a record whereas now when people can make records from their bedrooms, you've had such a growth in the industry. And I think in terms of what people are doing on Amigas and bridging with people like myself in broadcasting I don't think you have to make the Hollywood block busters, I think you have to find your own niche market because people will find you anyway. And you don't need to produce Disney type animation because people who go and watch Disney will watch Disney anyway because of the name... so we looked for our own style of animation within the Amiga package and we found it."

Does he have high hopes for

Spirit of the Pharaoh?

"I think it will become cult and expand" and here the Amiga comes in again "because it's quick to turn around. For a start with Amiga you've got an instant turnaround time, not like when you're doing traditional cell animation where there's vast amounts of people you need to turn it around. The Spirit of the Pharaoh package was literally a threesome. Characters were designed by me, the artwork was done by Ian Peterson, David Oxford. Ian was the foreground artist, David the background artist. The 3D modelling effects were done by Henri Bujko and his team at Alternative Image."

Should we expect to see a game soon? "We've got a game in development which is on the virtual reality headset and we're planning a release on CD-ROMs. And what about the Amiga? "We probably will release one on the Amiga because Henri (Bujko) just loves the Amiga."

Spirit of the Pharaoh is currently being considered by the BBC for its autumn schedule. ■

Lisa Collins



ASCON 

The dream starts here...

Head to Head

There's nothing better than a bit of competition to set the adrenaline pacing through your veins. Two player games have been around for ever, but with a serial cable things can get even more interesting ...

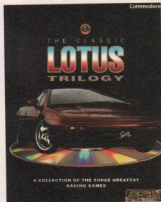
Gloom and Alien Breed 3D arrived in the office last month, much to the chagrin of Nintendo Magazine System, who share our penthouse offices at Priory Court, and who had just received the official Doom on SNES. They were lorded over us all month and still crowed while I played Gloom on my A1200. "It's not Doom though, is it?" they all chanted, stating the obvious. A little while later the tables were turned though.

With Mat Bettinson sitting in the games room shouting "I'll get you ya %\$(!\$@!" at the top of his antipodean lungs and Tony Horgan quietly sniggering away at his desk, Nintendo mag wanted to know what was happening. There were several clues. Number one was the simultaneous sound effects and music emanating from both the games room and Tony's hi-fi. Number two was the cable running along the floor from Tony's Amiga into the games room.

The console boys were foxed. They may have an official version of Doom but it's one player only. That's why they should have got a real computer!



▲ Gloom is great in two-player side by side mode. A wall modem link allows full screen, full speed play on two machines.



▲ Lotus 1 has split screen play, Lotus 2 wall modem capability.

Gloom (rated 91% in CU Amiga Magazine September 1995) is the first of the Doom clones to hit the streets and while it's excellent in single player mode there's nothing like a two player game to spice things up. In fact Gloom is an excellent game to illustrate the effect of a null modem link up as opposed to conventional two player single machine wisdom.

Like Lotus Esprit Turbo Challenge it has a split screen mode which allows each player to independently move around the maze in either the top or the bottom half of the screen. Unfortunately, with two separate rendering jobs going on at the same time on the same machine this slows things down. It also restricts vision. But, because it has a null modem facility you can



▲ An opponent charging straight at you in Alien Breed 3D. Unlike Gloom it has no side by side two player mode, only head to head. And it's brilliant. Platforms, stairs, pits and water provide cover.

link up two Amigas through their serial ports and get the benefit of full screen action, double sound effects and no loss in the speed stakes. In fact Lotus Turbo 2 opted for this type of two player game as well.

This sort of interaction is achieved by the two machines communicating with each other via their serial ports using a three core cable. Although there is ostensibly two different games being played at the same time (two sets of software are required), they communicate with each other, with one machine sending co-ordinates and information to the other followed by an echo return. Thus my opponent's machine knows where my marine, my plane or my car is at all times and can display them when relevant.

Speed wars

This sort of information is distributable not only between, say, two A1200s but also between various Amigas and even outside platforms like the PC (if the games were compatible and you know someone sad enough to have one). Some titles only play at the speed of the lowest common denominator though. If you have a standard A1200 linked up to an



▲ An intro screen to Powerman. Unfortunately I've lost the copy protection, but it WAS good. Thanks.

A4000 040 for instance, AB3D will decrease the advantage of the A4000.

Not so with Gloom, which plays at the pace of each machine even if they are unevenly matched. The competition for speed in our office became ridiculous playing this game: after Tony had stolen all the weapon power ups and energy bottles on the first few levels Mat realised that there was a 40MHz accelerator in his Amiga. The Following day Tony was challenged to a 'fairer match' - our A4000 vs the accelerated A1200. However it's just the screen refresh that speeds up, not your progress through the levels.

The instincts - competition and camaraderie - raised by a two player link-up game are fascinating. In Gloom the best two player

Gaming

mode is actually side by side, helping each other out. But in most other games, like *Knights Of The Xix*, *Populous*, *Powermonger*, *Gladius*, *AB3D* or *Super Skidmarks 2* it's a battle against a human adversary that provides the spice. In *Populous* and *Powermonger* you can choose to be good or evil, in *Gladius* you are either the red or the white driver, in *Knights* you're either Tommy or the Hun. *Alien Breed 3D* (93% reviewed September 1995) is the latest and, dare I say (with the possible exception of *Knights*), greatest two player null modem head to head combat game.

In keeping with the theme you get to be either 'The Master' or 'The Slave' when you link up. This determines little of consequence except where you start off on the level you've chosen. *Gloom* falls in the two player head to head stakes because its mazes are all on the same level. *Breed 3D* has upstairs and downstairs multi layers in each maze, along with water and other hazards. This means that you can find a high vantage point and shoot down on an opponent without them ever seeing you, or you can become a hazy shadow in the water. Tension and sweat ensue.

What to get and where ...

If you are looking for the ultimate gaming experience and you've got a friend with a second Amiga then null modem cable and the following games should be right up your street. RRP's for *Gloom* and *AB3D* (both AGA only unfortunately) though Mark Sibly has been promising an ECS version of



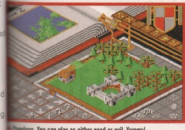
Gloom are £29.99 but through a games club like Special Reserve (01279 600204) you may be able to get them cheaper. They advertise both titles for £21, but you have to join their club which costs £7. Both are shoot 'em up heaven.

Knights Of The Sky is still available on the Kixx budget label for about £12 from mail order firms like Post Haste (01227 764204) who advertise in this magazine. As a flight sim it's superb. They also sell *Populous* and *Powermonger*, for strategy fans, on the Hit Squad label for under a tenner. *Super Skidmarks 2* has a low-res facility for non-AGA users and is definitely the best null modem racing game, allowing several players to use each machine. It sells for about £20 from either of the above sources.

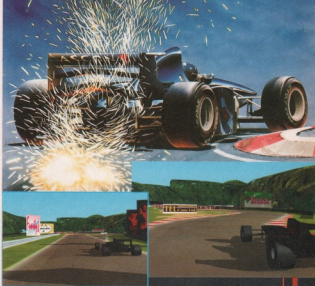
Cables can be relatively expensive but if you share the cost with your opponent/partner then this can be reduced. A 1.8 metre (approx 6ft) null modem cable can be bought as standard from Grey-Tronics (0181 686 9973) for £11.99. If you need a longer one they can also supply various lengths to order. An 8 metre (approx 25ft) cable was quoted at around £20. This would allow you to play in another room, creating even more isolation, atmosphere and volume (shouting at each other is an integral part of this sort of game).

So go ahead, banish that idea that computer games players are loners, get gaming with some friends and get your Amigas communicating now. ■

Martin Davies



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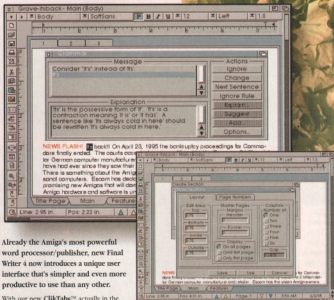
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To win all you have to do is send in your answers to the three questions asked to: Zip Drive Competition, CU Amiga Magazine, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

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- 1 How much does Zip drive storage cost, in pence, per megabyte?
- 2 What is the average data transfer rate of the SCSI version of the Zip drive?
- 3 What two items of software are provided with the Fourth Level Developments Zip Drive?

"HINT: check out this month's storage feature"

TIE BREAKER: What new applications do you see requiring mass storage in the future?

Rules must be obeyed

1/Its employees at EMAP Images, or Fourth Level Developments may enter. 2/Closing date for all entries is 15/10/95. 3/All winners will be notified by post. 4/The editor's decision is final. 5/No multiple entries. 6/Answers on a postcard please.

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Alan Dykes



PREVIEWS

- Pole Position ...44
- Citadel44
- Pinball Mania46
- Virtual Karting46



REVIEWS

- Odyssey53
- Club and Country56
- FSP56
- VFM59



PLAYERS GUIDES

- Valhalla 2 Solution60
- Vampyra65
- Matt's Snip Tips66



Pole Position

■ Due: Nov ■ Developers: Ascon ☎ 0171 372 7435

If you're a management fan looking for something a bit different then Ascon could have the answer. *Pole Position* was first announced last April at the spring ECTS and promised to provide F1 fans with the answer to their dreams: become Frank Williams or Silvio what's his name over night. Manage your own team, boss Nigel Mansell around, make him shave off his moustache. Hol hol! How jolly.

I never really realised how much goes into Formula 1 planning and management. Day to

day planning turns into week by week planning, turns into planning for the next season. And you've got to handle it all at the same time. If you thought that Ascon's



Citadel

■ Due: Sept ■ Developer: Arrakis Software ☎ 01438 84000

Black Legend have a bit of a reputation for picking up promising Eastern European programmers' output and publishing it here in the UK. They did it to great success with *Football Glory* from Croatian developers Croteam and are now attempting to do it with *Citadel* from Polish

developers Arrakis Software.

The team consists of Pavel Matusz (project manager), Artur Badowski (programming), Radek Czaczkotka (graphics) and Artur Opala (music).

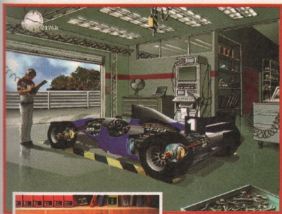
Citadel is the latest in the 'Doom' clone stakes but with one big difference: it's compatible with any Amiga with 1Mb RAM ... that's right, it'll theoretically work on an A500.

However the version which we've seen is very, very slow on an A500. Even on an A1200 it's slow by comparison with any of its competitors.

To compensate for this you have the option of reducing the amount of detail on screen and, similarly, reducing the size of the screen up to eight times.

Full screen





▲ Pole Position: the cars be more temperamental than the drivers.
(Left) Some German F1 propaganda!



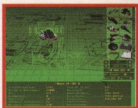
On The Ball was complicated then take a look at this.

Team management functions include (like On The Ball) dealing with complex personalities, but

also include complex mechanical problems with the cars, a very real problem if you know anything about F1. The cars are often more temperamental than the drivers. Ascon claim over 100 variables which can effect a particular car/driver combination's performance. There are the standard

management functions of salary and sponsorship negotiation, public relations, looking after finances and loans etc, but it's the mechanical development and maintenance of your cars that really sets Pole Position apart. Here you've got to keep your current cars tuned up, invest in new technology, examine all areas including engines, exhaust, drag efficiency, tyres, fuel etc. You also need to design new cars for the following season while the current one is still in progress.

All this means that Pole Position could be one of the busiest management simulations ever. The Amiga version will be for A1200 only and although the PC one has Silicon Graphics rendered race scenes and one hell of a lot of disks, this is going to be the last part implemented in the A1200 version. The reasons for this are largely related to the



▲ And so, where do you start? Designing a car is not a simple business. This drawing board helps.

number of disks it would take to do the equivalent, especially keeping in mind the limitations of playing off floppy.

The management element looks good at the moment though and the graphics are pretty impressive. Ascon have a lot to live up to after On The Ball - let's hope they can get this one right. ■

Alan Dykes



▲ Bad guys. Same grizzly, just like the colonel's recipe. How you've got to wait for him to disintegrate before getting past. Any ketchup?

mode is slow in the extreme on all but the most accelerated Amigas, but there are diminishing returns to scale by reducing size. Making it faster means you can't see what's going on. Let's hope this can be addressed in the full version.

Part of the reason for its tardiness is the quality of the

graphics. Walls still look like walls close up, enemies still look like enemies even if they're in your face. Most of all though, weapons look like ... weapons. No pixelated imitations here.

A shotgun is a shotgun and a minigun is a minigun. There is an animated heartbeat scanner which measures stamina, a health readout and a handy directional pointer to tell you where you're going.

Citadel has a wide variety of weapons all accessed by the F keys. Weapons and ammunition must be picked up and include a pistol, a high power automatic rifle, a sort of molotov cocktail projector, a minigun a laser gun and more. After selecting a weapon a window just underneath the playing screen displays it and another tells you how many shells you have. You can also pick up red, blue and green keys which are also accessed through the F keys, first aid boxes and, apparently, beer, which makes you drunk and useless (?).

The object of the game is to destroy the Citadel which is achieved by collecting pieces of a bomb and bringing them to the top level where they are assembled for the day of reckoning. Along the way there are an assortment of enemies with varying degrees of survivability. As well as your weapons you will be able to confuse them into killing each other and use items like fuel barrels to blow them up.

It's such a pity Citadel is so slow. Our preview copy still had

all its on-screen text in Polish but this didn't take away from its effect. On a 50MHz accelerated A1200 Citadel gives the opposition a more than a run for its money. If the programming team get Citadel's speed up to scratch on a basic A1200 then it could do well. ■

Alan Dykes



▲ The amount of detail is impressive, and each level is quite different from the last... in a 3D more sort of way.



Pinball Mania

■ Price: £29.99 ■ Publisher: 21st Century ☎ 01235 851 852



After *Pinball Illusions* there was some doubt over at its publishers, 21st Century, whether another Pinball game would be produced for the Amiga. *Pinball Mania* had been touted as a possible non-AGA game which would fill the gap on older machines that couldn't run *Pinball Illusions*, but then its development was put on hold. That was



in February, this is now...

Pinball Mania has grown from a rumour into a fully blown product, but not for non-AGA machines as originally planned. Yes, like its older brother *Illusions*, *Mania* is an AGA only game with four tables, presumably because making it PC compatible meant SVGA and the effort of developing the EGS version would have cost a lot. This is a pity because there are a lot of *Dreams* and *Fantasia* fans out there who will be disappointed.

And they've changed developers. Yes, for undisclosed reasons *Digital Illusions* are not behind this piece of work. The new developers are Spidersoft, and no I haven't heard of them before, but let's hope they know their pinball.

Back on familiar ground, *Pinball Mania* has four tables. In this instance they are Tarantula (well it is by Spidersoft), Jailbreak, Jackpot and Kick Off. Initially the tables

look a lot less busy than their predecessors, but, according to 21st Century this is for a reason. Scoring. They reckon that in *Illusions* it was too easy to get a high score, so they've implemented a lot more combos and made things a bit more skill and strategy orientated.

Most of the action takes place in the upper regions of each table and a second set of flippers has been provided to keep the ball rolling up there. The graphics are good but the hi-res multi ball option hasn't been carried over from *Illusions*. An excellent soundtrack has been composed for each



table though, in the unfinished version we saw, the sound effects were not strong enough. We'll have a full review soon. ■
Alan Dykes

Virtual Karting

■ Price: £29.99 ■ Publisher: OTM ☎ 01827 312 302

I have to admit that I was a bit dubious about this when it first came in. OTM are the people behind our *PowerBase* cover disk a couple of months ago, which was great, but they are also behind the launch of *British Touring Car Challenge*, a management sim that that was about as useful as old burned out tyres. So ... good for utilities, bad for games eh? Well, let's take a look at *Virtual Karting* and see.

VX is all about driving a

go-cart around a racing track. Said carts come in two forms, 100cc or 125cc and they go like the clappers. Between 25 and 50 frames a second is claimed by OTM and the effect is good on an A1200, very smart on an accelerated one. Unfortunately my poor brain was not ready for the experience and I felt pretty nauseous after about two minutes, but OTM were quick to say that this IS just a development copy and this effect was being looked into. In the meantime I've plugged in a joystick extension and am playing the

demo about six feet away from the screen. The three tracks in the demo we received were dangerous, with hairpin bends and plenty of fast paced shenanigans, with a little pair of feet on the front of your cart doing the accelerator-brake

shuffle as you hit the bends and the straights.

Sound was mightily impressive too – it really was a bit like being on a cart and they have injected a sense of humour too: if you drive into the water the game goes 'glug glug' as you sink in. The theme music is cool too.

There are four viewing angles to choose from but sadly, at the moment, no two player option. If OTM get their programmers to smooth out the background graphics a bit, make the tracks a bit more interesting and tweak the gameplay here and there the *British Touring Car*



Challenge debacle will be forgotten in an instant. If they added a null modem two player option *Virtual Karting* would be stunning. Good for utilities and good for games? ■

Alan Dykes

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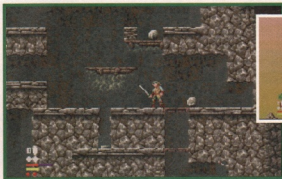
Odyssey

■ Price: £29.99 ■ Publisher: Audiogenic © 0181 424 2244

The world's first swash buckling elf (sort of) makes his debut in Audiogenic's new platform puzzler.

I remember seeing *Odyssey* in its very embryonic stages at Audiogenic's offices to where it had been sent by two art students. I was very impressed by it then, and I'm glad to say after it has been some though tweaks and refinements at the hands of the Audiogens, I'm even more impressed.

Odyssey could best be described as a platform/RPG adventure which is set in a Narnia-type fantasy world comprising of seven islands all with odd sounding names (Leo and Castle are probably the most pronounceable). You are the swash buckling hero who has to defeat an evil wizard and rescue the king. The king is on the main central island in the castle but before



▲ There are a lot of these caverns dotted around the game. This is where logic comes into play. How do you keep the button on the left held down in order to keep the hatch doors open? Ah! A boulder should do nicely.

you can even attempt to rescue him you've got to travel to each of the islands collecting vital spheres of influence crystals, which give you the power to metamorphose into various life forms such as spiders, squirrel, birds, grasshoppers to mention a few.

For a change

Why the need to turn into a nasty creepy crawl? Well, I would if I was faced with an unsurmountable wall. Eight legs are better than two in these situations. A

large part of the game involves working out which animal is best to get through each level.

But *Odyssey* is about more than just leaping from platform to platform, changing into members of the animal kingdom whenever it takes your fancy. There are lots of puzzles to solve along the way and this element keeps you from getting bored. You've got to figure out the best route to get to an object that you need to progress through the level. For example, to get to a key that you need later on in a level, you need to work your way through an underground maze, opening levers, and figuring out ways of keeping the path clear for your to get through, while all the time trying to avoid rocks that seem to enjoy bashing at your person, arrows that fly out of the walls, strange attackers and swordsmen who want to carve their name out on your stomach. The restart icons (see screen



▲ That crystal ball thing to the left acts as a restart point, should you lose a life.

shot) come in handy when you are trying to navigate through an underground maze and thankfully there is a save option after each island so all your hard work doesn't go to waste.

Nice mover

Odyssey is a slick mover and the playability is pitched at just the right level, not too difficult but too easy, with the puzzle element to raise it above the standard platform gameplay. A great game. ■

Lisa Collins



▲ The shadowy heads points to your chosen island, you should go to the islands with the circles around them first to get those vital skills that you need to complete the other islands.

Mr Ben wasn't a patch on this geezer

One of the game's finer points is the unusual benefit of being able to change form as you go through the game. From spider, to rock, to bird, to grasshopper, I won't spoil the surprise. Let's just say there are plenty of life forms to choose from. Press the requisite function keys and a screen will pop up like the one on the left, flashing up which animal you are about to change into. Press fire and next thing you know you're in another life form. In this case it's a grasshopper, just right for reaching those otherwise inaccessible high areas.



▲ Another cavern: now do I get to that key?



▲ Here's our hero trying to get the ground crystal before the arrows get him.

ODYSSEY £29.99

A500	workbench version.....	1.3 +
	number of disks.....	2
	RAM.....	1Mb
	hard disk installable.....	no
A500	graphics.....	88%
A1200	sound.....	84%
	stability.....	88%
	playability.....	90%

OVERALL
An excellent
adventure

88%

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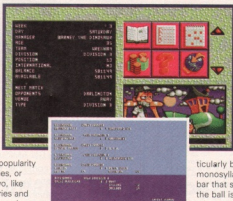
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Club & Country

■ Price: £19.99 ■ Publisher: Leisuresoft Ltd ☎ 01604 768711

First imagine the number of hot dinners that have been consumed in the history of the universe, then double it. The result is the number of football management games available on the Amiga. They regularly top the Amiga sales charts and the only rivals to their amazing popularity are football action games, or combinations of the two, like the *Player Manager* series and *SVOS*. Recently the genre has taken leaps and bounds with games like *Ultimate Soccer Manager*, and the *On The Ball* games from Ascom. The question is, what separates this particular sim from the rest?



Not much. This game looks and plays the same as a million others. There are some fairly nice cartoony graphics, and everything seems to run smoothly, and it doesn't offer anything in the



speed stakes over other sims. When compared to certain other management games the matches themselves look particularly bland. All you get is a monosyllabic commentary and a bar that slides to show how far the ball is down the pitch. It takes quite a while for the match, and there doesn't seem to be a way to speed it up. The game does support a multi-player season, but I doubt anyone would enjoy playing a season of this rather than a scout about on

Super Skidmarks or a protracted slaughter session on *Gloom*. I also doubt if any of my friends would stay awake long enough to finish off a season. To be fair to *Club And Country*, it really

should be compared to its contemporaries, but when *On The Ball World Cup Edition* is available on budget price, you don't really have to look any further.

However, this is probably a good way to introduce slightly younger players to the world of footy management, and if you really must have the latest management sim go ahead, but it will have to be a very rainy day before I 'boot' this up again.

Tim Cant

62%

FSP-League Monitor

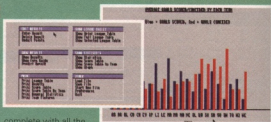
■ Price: £19.95 ■ Publisher: OTM ☎ 01827 312302

This was sent in as a game to review but, in my opinion, it's not a game... unfortunately, I didn't realise this until I'd signed the contract in blood and was sitting on the train reading the instruction manual. DOH!

So what is *FSP*? Well, it's

nothing more than a utility that allows you to keep your own record of the football league. Of course, the program can be used for any sport that's based upon the same league structure, with you able to change details such as points for a win, points for a draw, etc. But, er... that's it.

Thankfully, the product comes



complete with all the saved data from both last year's Premier League and the year before that, so at least I didn't have to start from scratch, but even with all of this information, I'd still have to say that I find it hard to justify twenty quid over the thing.

Once you have your statistics saved you can manipulate the information and perform a number of fairly interesting feats such as call up specific graphs showing, for example, Arsenal's past performances against West Ham Utd, but it's all shown with pretty basic graphics and text, and nothing to get very excited about.

The computer can be used to make predictions about how Liverpool will fare in their next game against Blackburn, but as anyone who follows football will know, it just doesn't work like that in real life. It's never over until the fat lady sings, and it's always a game of at least two halves (©1995 every crappy commentator ever).

And that's your lot. Perhaps interesting for the real statistic nut, but hardly thrilling. ■
Matt Broughton.

50%

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31. LEEDS UNITED	1	1	1	1	1	1	1	1	1	1	1
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38. ARSENAL	1	1	1	1	1	1	1	1	1	1	1
39. TOTTENHAM HOTSPUR	1	1	1	1	1	1	1	1	1	1	1
40. LEEDS UNITED	1	1	1	1	1	1	1	1	1	1	1
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42. MANCHESTER CITY	1	1	1	1	1	1	1	1	1	1	1
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47. LEEDS UNITED	1	1	1	1	1	1	1	1	1	1	1
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99. CHELSEA CITY	1	1	1	1	1	1	1	1	1	1	1
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VFM

These two games have never been released in the UK but are being put out as 'budget' games none the less. Value for money or dressed up PD? Let us be the judge.

Subversion

Price: £9.99 Publisher: Guildhall Leisure

Tel: 01302 890000

OK maybe Waterworld might have gone a bit over the top with fancy effects but I think *Subversion's* minimalist approach doesn't do it any favours either. It's all a bit basic. The game centres on a grid with an island in the centre which is surrounded by a sea dotted with little

blobs. The main blob is you, the captain, whose mission it is to destroy ship shaped blobs (enemy destroyers) making sure to avoid the blobs that look a little like dalesks (mines). To destroy the enemy ships you move a few squares at a time and then from a safe distance use your torpedoes or missiles to blast them out of the water.



Buy hey it's not all fast firing action in the murky waters, there are plenty of other things to do: like change your water depth, alter engine speed and generally keep an eye on the maintenance of your ship. So, as well as moving around the grid sending enemies to a watery grave you've got to make sure that you constantly keep your ship well stocked and in good repair; this involves staying close enough to the supply ship and allowing enough time for repairs to be carried out if the enemy manages to carry out a sneak attack.

This game has been kicking around the States for a couple of years now but Guildhall have decided to release it over here as a budget game. Some might think that they shouldn't have bothered. I think I'd stick with them on that one. The need to refer to the code wheel at the start of each mission and when you encounter a friendly sub doesn't do it any favours either. ■

Lisa Collins

30

Bravo Romeo Delta

Price: £9.99 Publisher: Guildhall Leisure Services.

Tel: 01302 890000

Having only just recovered from the excitement of football results in black and white-O-Vision (FSP), I now find myself faced with the task of reviewing an incredibly bland global nuclear war simulation. Yahoo! No, really.

Devoid of even enough wit to sample "Hello Doctor Falkner. Shall we play a game?". Bravo Romeo Delta is set shortly after NORAD picks up the first incoming nuclear warheads, targeted for US air bases, with less than six minutes to impact.

You are Chief Target Planner at the Strategic Air Command, and apart from having enough time to boil an egg, twice, it's down to you to launch a limited secondary strike - with targets demonstrating the 'resolve of your political leadership, while not escalating the conflict' - and it said that on the box (although how you can lob enormous nuclear missiles at someone and not expect things to

'escalate' is really beyond me).

The long and the short of this is that you have complete control over the U.S. Strategic forces, including ICBMs, SLBMs, SSBNs, Bomber Bases, and a large side-order of fries.

NORAD is on hand to help, offering tactical warnings and attack assessments as you plan your campaign.

BRD is certainly impressive in its obvious depth, but the presentation goes no way to welcoming you, and whether you go for a Bravo, Romeo, Delta, or Armageddon attack, you can be assured of a messy display for company, not to mention a rather drab offering from the sonics department. Still, the sort of folks that would enjoy this product probably won't mind too much anyway.

The planning itself is controlled via a number of windows, specialising in either assessments, communications, or the main plan generator.

In honesty, I'm the worst person to review this, because I like *Project X*. This is clever but dull, and only serious war-heads will get a thrill out of it. ■

Matt Broughton



53

Valhalla

Before the War

PART
4

Welcome to the final part of our complete solution to this puzzle game where it's not so 'good to be the King' when someone's out to get you.

Cast your thoughts back to last month and you will remember that we left you in Mestophiles' chamber with your soul filled with evil. Now, in your damned state pick up the light bulb and walk into the next room. Talk to the monk between the two chests. He says 'The Lord be with you'. Operate the floor tile nearby and underneath you will find a laurel wreath. Walk to the left, operate the second floor tile that's hidden beneath a book, and take the apple that's underneath it. Pull the lever, go through the door and operate the third floor tile that's hidden beneath a book, there you'll find a vanish spell. Take this and go to the lamp near the knight. Put the vanish spell on the floor between the knight and the lamp, then put the bulb in the lamp. You now have access to the piece of paper that says 'Also with you'.

Go and stand opposite the monk and look at your piece of paper. When the chests open take the stamina and the flower. Go back to the place where you found the vanish spell and walk down the river, making sure to top up your stamina when it gets too low. At the end of the river you'll find the 'Tomb of the King's Knight Eve Holyworts'. Take the stick and go back to where you found the rosary beads. Explore the passageways until you find a hole in the wall. Insert the stick into it. Pull the lever down and open the door. When you walk into this room the door locks behind you. Operate the two floor tiles in this room and take Excalibur and the deflated balloon. Drop Excalibur onto the hand that's sticking out of the water, which then disappears allowing you to access a vanish spell and a lever that opens a door to get back out. Drop the vanish spell between



▲ Right I've got everything I need, I'm all set to kill the king. I blame all this violence on too much TV assault.

that appears in their place.

Insert the door key into the locked door beside the monk and enter the room where you will notice a courtier who has the hiccups. Operate the floor tiles near the pianola, take the rosary beads and the firework. Return to the previous room and drop the rosary beads onto the fountain of confession and take the prayer book. Drop the book and the apple on the 'Tomb of the King's Knight Eve Holyworts'. Take the stick and go back to where you found the rosary beads. Explore the passageways until you find a hole in the wall. Insert the stick into it. Pull the lever down and open the door. When you walk into this room the door locks behind you. Operate the two floor tiles in this room and take Excalibur and the deflated balloon. Drop Excalibur onto the hand that's sticking out of the water, which then disappears allowing you to access a vanish spell and a lever that opens a door to get back out. Drop the vanish spell between

the knight and the sweetie jar, then take one of the sweets that are lying around and put it in the jar. Once the knight vanishes you can get to the King's watch and the piece of paper that says 'I've found your watch'.

Wind power

Leave the room and go back to the fountain where you put the rosary beads. There is a wind stone next to the stone to fill it with air. Put the inflated balloon down in front of the hiccupping courtier so when it bursts, it frightens him enough to get rid of the hiccups. He gives you a picture of twins gratitude. Put the picture on the fountain of Gemini in the room where you found Excalibur. Take the double action potion. This potion allows opens the troublesome door controlled by two levers near the pianola. Now you can get into the room where the Baby Prince lies peacefully in his cot. When you try to take the sun symbol he cries, so

take the piece of paper which says 'The baby is crying'.

Cream cakes

Leave the room and travel further down the passage way. The monk in this room asks you if you repent your sins (of course you don't). The King asks you to tell the Queen he loves her, and gives you a rose so you can say it with flowers. If you give the King his watch he puts it on his watch stand but does not reward you in any way. Use the piece of paper to tell the King the baby is crying. When he leaves take his watch. When the King stands beside the child you can't give him the items he asks for. To make him return to his place you have to tell him the tannoy his broken. Take the door key and nighttime before you leave the room. Travel up the passageway and find the locked door that your key opens. Inside this room is a courtier who seems to be slightly deaf and another knight who is preventing you from reaching some altars near a jewellery box.

Operate the floor tile and take the cream cake back to the baby's room. Nearby there is a lever that opens a door into another room where there's a monk who wants to be your friend. Also in here is a machine gun and the 'Tomb of the King's Knight Fawkes Eclair'. Put the firework and cream cake on here and take the slimsfast potion.

Go back to the room where the weighing scales are and drink the potion before standing between the two chests. Stand on the scales and before you can say 'Barry Bethel' the chests will open revealing a stick and a paper with 'I love you' written on it. Go back to the room where you found Excalibur. Insert the stick into the hole, operate the lever and enter previously unexplored territory. In



here is a nurse's bag. Put the nightingale on here to get the throat lozenge. Operate the floor tile and take the vanish spell. There is a shortcut between this room and the room with the courtier who can't hear you properly. In the passage way between the two rooms is a protection potion which allows you to take the flux capacitor. Give the throat lozenge to the courtier who has lost his voice. He rewards you with a music sheet.

Altar ego

Down the passageway you will find a room with four lightning altars, a watch stand and a laser. Drop the flux capacitor inside the laser and put the prismatic orb on the altar nearest to the laser. Have a go with the laser to see if you have done it correctly. If you put the King's watch on the watch stand then tell the King through the tannoy then the King will come searching for it. If the watch is there the King will retrieve it. If the watch is missing he leaves. Take the music sheet and put it on the bed of nails in the room with the friendless monk. Take the music sheet full of holes and put it on the piano. This opens a chest in the next room which has been hiding the soprano potion. You can now sing the password to the courtier in the King's chambers. He opens a door allowing you into the Queen's chambers. The Queen gives you a note for the King in return for the rose but she appears to want nothing more than an endless supply of chocolate.

Operate the floor tile and take the chest key and pick up the piece of jewellery from the Queen's table. The key fits the chest in the same room as the

nurse's bag. Inside is a paintbrush. Put the vanish spell down between the Knight and the jewellery box, then put the jewellery in the box. The knight vanishes as he goes to take it. You now have access to the first emerald altar and the potion of repentance which is perched on top of it. Return to the monk who wants you to repent your sins, drink the potion and look at him. When he asks you if you repent you reply "Yes". He lets you have the white rabbit from the chest beside him. Put the white rabbit in the hat in the same room to open two further chests, take the prismatic orb and the marksman potion. Before you leave give the note to the King who rewards you with a hearing aid and asks you to bring his sceptre. Go and stand behind the machine gun, drink the potion and operate the gun. This time you hit the lever which opens the door below you. Open the floor tile and take the umbrella.

Bring the hearing aid to the deaf courtier and take the quiet potion. Drink this whilst facing the courtier who asks you to whisper the password. Look at your piece of paper which says "I love you". He opens the locked door. Go into the room and take the picture of night and day off the floor. There is also a battery charger in here. Put this picture on the fountain of opposites in the room with the nurses bag. Take the emerald, and put it in the emerald altar. Take the altar ego potion from the next altar. Go back to the room with the friendless monk, drink the potion and talk to him. When you have made friends with him take the sceptre out of the chest which is nearby. Take this sceptre to the



▲ Always tap up on stamens when travelling on water.

King who rewards you with a sovereign which you put in the King's fountain near the weighing scales. Take the ank that appears and put it in the fountain of Egypt next to the Queen. Take the third emerald and put it on the next emerald altar. Take the picture of Notre Dame which you can place on the Tomb of the King's Knight. Quasi Da Vinci along with the paint brush. You now have another vanish spell so proceed back to the Queen's chamber and find the door bell. There is a locked door nearby. Place the spell in position just outside the door and operate the door bell. When the knight vanishes you can now explore the room he was guarding. Put the umbrella on the barometer and take the emerald that appears. Put one of the Queen's bars of chocolate in cyanide, and give it to the Queen. She will stop asking you for chocolate, and gives you the combination to the chest guarded by the monk nearby. Stand in front of him and look at the numbers in your rucksack to open the chests. Take the prismatic orb and the picture of the holy ghost. Drop the emerald into the last emerald altar, take the battery, the vanish spell and the numerical potion that are behind it. Return to the battery charger and charge the battery before putting it in the

power pack that drives the train. The train steams down the track and pushes the paternal potion into a position where you can reach it. Drink the paternal potion



and take the sun symbol from the princes room. Travel to the room where you changed your battery and locate the fountain of the father which contains two locked doors that prevent you from reaching a monk. Drink the numerical potion and look at the original piece of paper take the last prismatic orb and the drinking vessel.

The end is nigh

Go back to the last remaining knight and put the vanish spell between him and the barrel. Put the drinking vessel under the spout of the barrel and operate the tap. When the knight disappears take the chest key. Open the chest in the baby's room. Take the theory of relativity and put it in the fountain of Einstein, near the barometer. Take the genius potion so you can do the IQ test. The chest besides it opens and you can take the superglue.

Go back to the room with the laser. Put a prismatic orb on each lightning altar, put the watch on the floor and put the glue on the floor. Tell the King you have found his watch through the tannoy then wait for him to appear. When he walks over to the watch he gets stuck in the glue. Operate the laser and the King gets fried to a cinder.

And so we say goodbye to the King and the game. We hope you've enjoyed the game and have managed to complete it with our solution. ■



▲ To make the King come running, tell him that you've found his watch.

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She flies
on wings of
darkest night
With ruby lips and
deadly bite.

Yes, it's the girl
with that ole' black
magic personality.
Step right up for
a bit of advice and
a quick nibble of
your earlobes.

Indiana Jones and the Last Crusade

I've bought this LucasArts Classic
adventure collection and I'm
having troubles all over the
place. I've got to the library in
Venice but which slab is it
to get underground?

Craig Dutton, London.

I wonder what they mean when they
call things a classic? I suspect it
means something which is getting on
a bit, but it's still got a bit of life left
in it. By that reckoning I suppose
I'm becoming a bit of a classic
myself. Getting underground is quite
easy really, you just need to hang
around in graveyards in the early
hours of the morning and things
generally work out that way.

In this case you need to find your
father's diary which is found in Dr
Jones' office along with the rest of
his mail. Once you are left alone in
the library, consult the diary and it
will show you a picture of a stained
glass window and mention an
inscription. Search for the window
with the same pattern, (pausing only
to find a copy of Hitler's book -
Mein Kampf).

You should also grab a steel pole
and a red cord rope. When you
find the window you must find the

correct slab. The inscription is the
clue here. If the book said, 'second
on the right' this means you should
examine the pillar on the right and
look for the second number on it.
Walk to the correct slab and use the
pole on it to break through.

Incidentally, there are many
ways to finish this game and one
way involves finding the sticky tape
which is stuck on the back of the
bookcase in Henry's house. Push
the bookcase to find it. Use the
sticky tape in the jar, back at Indy's
office, to get a key. This key opens
something at Henry's house.

Leisure Suit Larry 3

I have found a sharp knife, soap,
beach towel and orchids. I know I
have to find a Fat City membership
card in my divorce papers,
but I don't know what to do to get
to that point. Can you help?

G. Jones, Exeter.

Can I help? Do bears pooh in the
woods? Of course I can help. The
secret is in the knife. First you must
go to the Casino and sharpen the
knife on the steps outside. Next go to
Chip 'N' Dale's and cut the grass
outside with the knife. You can weave
the grass into a kind of skirt to cover
Larry's modesty. (It won't need to be
very big!)

Finally search for a piece of
granillo wood in the first jungle
scene after your house screen. You
could now carve an extremely rude
piece of native sculpture with
the knife.

The Secret of Monkey Island

Please, please help me. I've
defeated the Swordmaster and
stolen the idol but I can't find the
treasure anywhere. I've got 164
pieces of eight, minutes, a rubber
chicken, breath mints, sword,
shovel, staple remover, stewed

meat, 100% cotton T-shirt, a yel-
low petal and a map which looks
like dancing steps.

Dean McGill, West Yorks.

From the overhead map, go to the
fork in the road. From here you sim-
ply follow the dance steps on your
treasure map. It's really quite simple.
Back is the back of the screen, while
left and right means that you go off
the screen in that direction. You will
eventually come to a screen with an
'X' drawn on the ground. Use the
shovel on the 'X' to reveal something
really great, then take it back to the
pirates in the Scumm Bar.
Incidentally I'll tell you that certain
flowers are used by food-heads to
send themselves to 'cuckoo land' so
be careful what you do with those
petals you've found.

Police Quest III

Having been to the Locker Room
to get my equipment, I go back to
the office and find a Computer ID
Request form. I've no idea what to
do with it. I've tried putting it
on desks and in trays, but no luck.
Please tell me what to do.

David Parrish, Banbury.

I love forms don't you? I especially
love computer departments who
won't let you use the computers until
you fill in a request form and then
you find out that all the forms are
held on the computers. Does that
ring a bell with any of you? In this
case you simply take the lift to the
third floor and give the memo to the
Head Technician and he will give
you a computer access card.

Secret of Monkey Island II

I am having major problems on
the last part of this game. Le
Chuck has just announced that he
is my brother and 'warped' me
into the next room. No matter
what I try to do from there on, he

finds me and 'warps' me again.
Please tell me how to get past
this wretched part of the game.
PS. I am playing the 'light' level of
the game.

Richard Adams, Nuneaton.

You do realise that the 'light' level is
for wimps don't you? Well I'm not
surprised that you are having trouble
with your brother, for after all, that's
what brothers are for.

There is no easy answer to your
problem, you simply have to perse-
vere in what you must do to defeat
him. It will take time but you must
go to the storeroom and get the bal-
loon and the voodoo doll from
the boxes.

Go to the First Aid room and get
the syringe from the medical drawer,
the surgical gloves from the trash
can and your father's skull. Go to the
room with the broken grog machine,
fill the gloves and balloon with heli-
um, then press the coin return on the
grog machine. Wait for Le Chuck to
appear then give him the hankie.
Return again to the grog machine
and press the coin return once more.
When he bends down get his under-
pants. Go to the lift and enter. When
Chuck appears pull the lever. Pick up
the beard and put it into the bag
along with the doll, underpants, han-
kie, and skull. Find Le Chuck. Use
the syringe on the doll. When Le
Chuck walks away, follow him and
pull the doll's leg off. Remove Le
Chuck's mask. ■

Got a problem with an adventure
game? Vampyra has the answer. Get
your conundrum onto paper, and send
it in to Dear Vampyra, CU Amiga
Magazine, 30-32 Farringdon Lane,
London EC1R 3AU.



CHASTITY
CAN BE
CURED. IF
TREATED
EARLY
ENOUGH!



MATT THE MEDIC

Hello and welcome once again to Snip Tips. Thanks for all the letters you've been sending in — keep it up! Don't forget, there's a free Hit Squad game for every tip printed.

YO JOE!

Hudson Soft

A simple cheat for an odd named game this one. Type 'wel-traumkakakalen' to allow you to top up your lives by pressing the 'j' key. You can also now skip levels by hitting the 'y' key. Thanks to Dave Taylor for that one.

UFO: ENEMY UNKNOWN

MicroProse

A jolly handy tip from Michael Kelly, especially if you want to use any raw materials or money when manufacturing items (and who wouldn't?) Go to the manufacture screen and click on the item you want to produce. When it asks for the number of engineers and items, leave them both as 0 and then 'OK' everything. Now select it from the list of things being produced and allocate the number of engineers and only produce one item. You'll now find that you have a brand new item without having



▲ Get something for nothing in UFO. It's so easy when you know how thanks to Michael Kelly.

Snip Tips

spent any of your precious Elerium. Handy eh?

POPULOUS 2

Bullfrog

Someone's sent in a billion codes for this excellent game, but space doesn't allow for all of them, so here's a small selection to keep you going. Also, a nice little cheat is to activate lightning, hold down the left mouse button and key number '1'. Now release the mouse button but keep '1' held down and the lightning will continue flashing without draining your mana. Also, try typing MUSIC as a special code for different music and click on the writing that goes around the game area for special effects. Anyway, those codes ...

100	.....ADPEAT
200	.....OPENAK
300	.....HEKAGAB
400	.....QUABAG
500	.....EGGHAC
600	.....VENEAT
700	.....INCCAK
800	.....LDQUAB
900	.....OMUBAG
999	.....WOITAB

CANNON FODDER 1-2

Virgin

A right old mixed bag of hints from Paul Giles, but I'm sure they'll be of use to someone out there! OK ... In some of the alien missions you have to destroy a fence to proceed. This can only be done with a tank, but on the Franz Clammers Revenge mission, you have to complete a series of jeep jumps in order to reach the tank first. This will take a lot of practice.

Another top tip is to let enemy turrets blow each other up when you've restricted on the amount of ammo you have. A good example of this is on phase one of



▲ There's a tip a plenty for Cannon Fodder this month. From jeep jumps to grenades it's all here.

mission seven, where you have to destroy guns after blowing up their buildings.

As with the first Cannon Fodder, when you're attacked by helicopters, the best tactic is to run around in a circle until the chopper lands, and then blow it up with a rocket launcher.

On mission 18 there's a four star general icon under the second gun turret on the right. Also, on the first part of mission 21, you can achieve a huge number of enemy kills by collecting the



armoured car on the bottom right of the complex. Destroy all the enemy buildings and vehicles, except for the main enemy building in the middle of the complex. Park your armoured car outside this building and leave it there, where upon the enemy will proceed to blow themselves up with hand grenades. If you leave them doing this for 10-15 minutes, you end up having a soldier with a huge number of kills.

The final phase of the last mission is by far the easiest of the game. It has a group of your soldiers lined up in a firing squad and all you have to do is put the enemy leader out of his misery! (Paul goes on to explain exactly what happens when you complete the game, but I won't spoil it for you!)

Sorry folks, but that's all we've time for. Until next month, keep sending in those lovely tips. ■

DEATH MASK

Alternative

Robert Speight earns himself a free bit of Hit Squad software, courtesy of his mission cheats. Take it away Bobby ...

DEATH MASK CHEATS:

LEVEL	CODE	LOCATION	MISSION
1	00000	Entrance	Go to the exit shown on map.
2	52385	Engine Room	Destroy reactors and escape.
3	22428	Genetics Lab	Destroy embryos and escape.
4	84843	Briefing Room	Destroy bad guys and escape.
5	22087	Storage Room	Deactivate mine and escape.
6	38641	Titan Nightclub	Deactivate mine and escape.
7	06395	Prison 1	Find exit.
8	33224	Research Room	Find exit.
9	35527	Penal Colony	Shoot skull poles and aliens.
10	48962	Office	Destroy all aliens and escape.
11	65074	Weapon Room	Find exit.
12	62438	Transport Bay	Destroy all robots and escape.
13	28283	Security Zone 1	Find exit.
14	85325	Security Zone 2	Destroy all robots and escape.
15	10769	Alien Cruiser	Destroy all aliens and escape.
16	25324	Space Research	Find mine and destroy aliens.
17	43542	Dilithium Refinery	Destroy all aliens and exit.

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till 11.30pm

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A4000 Tower Case, 4Mb Memory, 1.7 Giga-SCSI Drive, Scsi Max 200mb Performatted.

New! Amiga A1200 'Christmas 95 Pack'

Software package not available at time of going to press and is likely to be available.

Only £1389.99

A1200 with 170Mb Hard Drive

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Get Serious

Horgan's Organ



Marinate me in rum and casserole me on a low heat in a red wine sauce if I haven't got a corking selection of reviews and tests for you this month!

Real 3D is here, but is it all it's cracked up to be? We give it a thorough toasting and reveal the results.

Following on from this issue's storage device guide we've got an intriguing 650Mb magneto-optical drive that also reads CD-ROMs in its spare time and a solution for frustrated A1200 and A600 users who want to hook up IDE CD-ROM drives and extra hard drives in the Multimedia Station. Good news too for A4000 owners: the IDE CD-ROM drivers can be used on your machines!

The accelerator was continue with the Sonnet Doubler, a 50MHz clocked 68040 for speed-hungry A4000/040 users, while Lola bring us a remarkably high quality S-VHS and composite genlock.

Want to know all about PageStream 3.1, the upgrade to this month's brilliant cover disk? Flick to page 82 for all the details.

Add to that the best PD review section you'll find anywhere in the world ... ever, with CD-ROM reviews too, and I think you'll agree that you've got something a bit special in your hands!

Tony Horgan

Time to get serious with this month's in-depth hardware and software tests, reviewed and rated by the Amiga experts.

● Real 3D v370

There's a lot going on in the 3D rendering world. *Real 3D* has long been a favourite with Amiga ray-tracers and the v3 upgrade has been eagerly awaited.

● Multimedia Station 74

Want to add an IDE CD-ROM to your A1200 or A600? Why not turn it into a tower system at the same time with the Multimedia Station.

● Lola L2000 Genlock 77

A new contender in the video market arrives from Lola in the shape of this combined S-VHS and composite genlock.

● MultiData 650Mb MO drive..... 78

It's a 650Mb writable optical drive. It's also a CD-ROM drive! How so? Find out all about this incredibly versatile box on page 78.

● Sonnet Doubler 79

These days even A4000/040 users are complaining about lack of speed. Is the Sonnet Doubler's 50MHz 040 plug-in the answer?

● PageStream 3.0i 82

You've already got version 2.2 of this top DTP package on this month's cover disks. Now check out the forerunner for the re-vamped version 3.1.

● CD-ROMs 84

This month's batch of CD-ROMs includes the latest in the acclaimed Aminet series.

● PD Scene.....89

The best PD entertainment section in the world brings you all the latest games, demos and oddities from the wonderful world of the public domain.

● PD Utilities 95

Over 40 handy utilities are reviewed this month: there's something for everyone here!



PD Scene 89



PageStream 3.0i 82

Multimedia Station 78

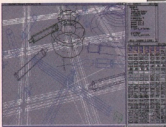


Real 3D V3

■ Price: £399.95 ■ Developer: RealSoft ■ Supplier: Activa Intl

© 0181 4025770 ■ E-Mail: info@activa.demon.co.uk

The Amiga's most powerful rendering package gets another major revision.



▲ Constructing the scene in wire frame.

Since *LightWave* was 'de-dongled' and released for standard Amigas rather than just the VideoToaster, *Real 3D* seems to have taken a back seat. However, *LightWave* definitely plays second fiddle to *Real 3D* when it comes to sheer power.

The two systems work in a rather different fashion. While *LightWave* is a surface modeller (just like *Imagine*), *Real 3D* is a solid modeller. Solid modelling has the advantage of being able to create transparent objects, such as glass and lenses, through which the virtual light can pass adding realism to scenes and objects. Surface modellers use thousands of tiny polygons all joined together to give the impression of a solid object, which causes problems



▲ The final render with textures, shadows, reflections and all. Isn't 3D rendering wonderful?

with translucent objects. This is where the 'Real' in *Real 3D* comes in. With proper spline (curved line) modelling, there's no need for facets (flat faces) at all. Smooth real life curves can be created with much less memory but with a negative impact on rendering time. Realism is the major selling point here.

There are so many different techniques that can be added to simulate a real live situation that

we couldn't begin to cover them all here. One area concerns the simulation of photographic side effects such as depth of field and motion blur, along the new lens flare feature, previously a trick *LightWave* called its own. Glow effects have also been added, so *Real 3D* should now be able to handle all those flash Babylon 5 type scenes with laser bolts, glowing engines and copious lens flares. These have been a long time coming, but they fit well into the package, even if lens flare is only available as a post effects module. You can even simulate the sparkly random streaks seen when viewing lights in the dark, which is an excellent touch. Watching glowing objects change colour as they pass behind coloured translucent material is gorgeous.

The horrible seams that use to occur when images were mapped on to spheres is now banished by applying 'Freq XY' infinite tiling' to



▲ The extensive render settings GUI. It's a good idea to turn off as much as you can for speed.

make the texture more dense in places in order to fit. Small improvements like this abound in *Real 3D* which shows that RealSoft have been listening to users' pet hates and fixing them as they go along. It would be nice if upgraded versions of *Imagine* and *LightWave* contained so many fixes for long standing problems and requests.

Manual override

The old manual has been replaced by a new and impressive telephone book sized volume. Unfortunately it only covers the Windows version of the package and as such all the windows and menus in the example screen shots are different. This is fairly annoying but it isn't too much of a problem since the packages are generally alike, with exception of a few minor features. The new instructions for the version 3 revisions come as an additional supplement to the manual. I would have preferred it to be integrated and a machine specific version especially with a £400 package.

Shrink-wrapping

Continuing RealSoft's apparent obsession with being able to model attractive women faithfully, yet another new feature has been added, and it's a corker! Cling Wrap enables you to wrap one surface around another, either in direct contact or with a predetermined offset or gap between the two. The example given is a skirt made from a cling-wrap surface plastered on a model of a girl. The skirt will then cling in all the right places even after the model of the girl is set in motion. The mind

Rendering improvements

Rendering times of B-Splines is said to be between two to 10 times faster depending on complexity. This allows the use of splines more often without turning rendering time from hours into days. Auto box rendering will create frames by dividing the image into a grid and drawing each square separately, as seen in *LightWave*, reducing memory needs and increasing speed. Due to popular demand, render settings can now be named and saved out for future re-loading. 8 bit alpha channel output has been added to IFF file rendering and finally JPEG saved output has also been added for those low on drive space. JPEGs can also be used as textures for mapping onto objects. That's certainly handy.



▲ We can look forward to more space scenes from Real 3D V3 as lens flares like this are now automatically handled by the new software.

boggles at the possibilities (monster skin, moving objects within wobbly bubbles and plenty more).

Editor changes

Real 3D has always impressed with its solid objects and skeleton functions which are used to realistically animate multi-part objects. However, there was a problem with some bends not behaving as they would in real life. Girls knees in particular foxed Real 3D V2 (well we all have our fascinations). Obviously not wishing to distort the female form, RealSoft added the ability to define the radius of a bend either globally or in specific cases, even for a portion of a bend by picking key spline knots. This can generate some amazingly realistic organic like objects.

Both *LightWave* and *Imagine* have a skeletal function known as 'Bones'. Once surfaces are attached to the bones, handling the bones will then move the surfaces. Real 3D calls its bones 'skeletons' and with version 3, now sub-skeletons can be tied to the main ones - fantastic, as a complex limb could be moved at the end and the other joints will gyrate realistically to fit the movement. It's a wonder to behold.

The new time line function allows objects that have been given a motion path to inherit complex movement patterns based upon nested time lines. A quickly oscillating time line attached to a slow ramp will create a jerky speeding up and down movement along the path. Coupled with the enhanced skeletal structure handling and the same powerful Real 3D kinematics handling the physics, complex structures can be created and set in motion leaving Real 3D to work

out how it should look when it interacts with other objects in the scene; walking up a staircase for example.

There are many other changes to the editor side of things such as being able to define the depth of an extruded object with the mouse or by entering values into a GUI box. Another new brilliant feature is the ability to convert solid objects into polygonal models allowing them to be exported to other packages via some conversion utility. That'll make some artists ecstatic since realistic objects containing many curves can be constructed more easily in Real 3D and perhaps rendered in *LightWave* later.

Programming language

Real Programming Language goes to show how ridiculously powerful

New Features

Here are some of the new features to be found in version 3.

- 2 to 10 times faster B-Spline rendering
- Lens flares
- Glow for simulations of fire, gases, lasers etc.
- Auto box rendering
- Save/load render settings
- 'Shrink-wrap' skin rendering
- Seam removal from wrapped textures
- In-built programming language
- JPEG input/output

the entire package is. This built-in programming language loosely based on Fourth has been updated for version 3. RPL programs can now be placed in Real 3D's own 'S' directory to be activated automatically upon start up, and RPL creations can have their own graphic interface too.

Most users would steer clear of the complexity of RPL but there's plenty of power behind such a system if the inclination is there to use it.

Steep learning curve

Real 3D's steep learning curve hasn't improved at all with this version. Most of the operational changes are more shortcuts and features. It'll still take three times as long to learn how to drive Real 3D as last time.

The biggest problem is that unlike *LightWave*, the entire interface used to construct the 3D objects and scenes has to be arranged by the user. This may be more of a hassle than it's

worth if you'd like to spend all your time rendering rather than reorganising the interface. *LightWave* has the ease of use but then again, if you were to try animating a perfectly smooth sphere cutting a hole out of a glass object, then flying in a sheet to cover the contours of the hole you'd have your work cut out with *LightWave* (quite why you would want to do that is another

question altogether - Ed). Maybe you could do it in *LightWave* but you'd probably need days on end and at least 64MB of memory.

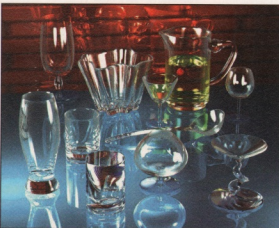
Once you've learned the complexities of Real 3D, the next step is weeding out unnecessary features in your scenes to avoid bloating rendering times dramatically. Wire frame previews of B-Spline objects take ages to draw even on a 25MHz 68030 or so. To use Real 3D on a low to medium power CPU you'd need to use plenty of quick boxes to avoid 3 minute redraws and many hours for simple renders.

If you take your rendering seriously enough to want to spend £400 on a rendering package, some kind of 68040 accelerator would be essential. Even then it would be easy, adding motion blur, splines and glowing objects, to create a simple picture that would take a week to render.

This package is tricky so you should allow at least a solid unproductive week to get to grips with it.

An absolute beauty of a beast, all Amiga users out there should be as proud of this as they are of *LightWave*. ■

Mat Bettinson



▲ Real 3D is renowned for its amazingly realistic simulation of light through translucent solid objects. The render of many glass objects goes to show what it's capable of.

REAL 3D V3 £400

A500	system requirements: 65 2.x, 5MB RAM + hard drive required. 68040 accelerator + more RAM recommended.
A500+	ease of use: 63% Real 3D has always been a pig to learn.
A600	performance: 98% Amazing. Use anything less!!
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EDU DISKS 1-2-3-4

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0245 EDU DISKS 1-2-3-4
0246 EDU DISKS 1-2-3-4
0247 EDU DISKS 1-2-3-4
0248 EDU DISKS 1-2-3-4
0249 EDU DISKS 1-2-3-4
0250 EDU DISKS 1-2-3-4

101 GAMES 2

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EDU EDUCATION PACK 5

0261 EDU EDUCATION PACK 5
0262 EDU EDUCATION PACK 5
0263 EDU EDUCATION PACK 5
0264 EDU EDUCATION PACK 5
0265 EDU EDUCATION PACK 5
0266 EDU EDUCATION PACK 5
0267 EDU EDUCATION PACK 5
0268 EDU EDUCATION PACK 5
0269 EDU EDUCATION PACK 5
0270 EDU EDUCATION PACK 5

EDU DISKS 1-2-3-4

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0272 EDU DISKS 1-2-3-4
0273 EDU DISKS 1-2-3-4
0274 EDU DISKS 1-2-3-4
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0277 EDU DISKS 1-2-3-4
0278 EDU DISKS 1-2-3-4
0279 EDU DISKS 1-2-3-4
0280 EDU DISKS 1-2-3-4

101 GAMES 2

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EDU EDUCATION PACK 6

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0299 EDU EDUCATION PACK 6
0300 EDU EDUCATION PACK 6

EDU DISKS 1-2-3-4

0301 EDU DISKS 1-2-3-4
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101 GAMES 2

0311 101 GAMES 2
0312 101 GAMES 2
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EDU EDUCATION PACK 7

0321 EDU EDUCATION PACK 7
0322 EDU EDUCATION PACK 7
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0324 EDU EDUCATION PACK 7
0325 EDU EDUCATION PACK 7
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0330 EDU EDUCATION PACK 7

EDU DISKS 1-2-3-4

0331 EDU DISKS 1-2-3-4
0332 EDU DISKS 1-2-3-4
0333 EDU DISKS 1-2-3-4
0334 EDU DISKS 1-2-3-4
0335 EDU DISKS 1-2-3-4
0336 EDU DISKS 1-2-3-4
0337 EDU DISKS 1-2-3-4
0338 EDU DISKS 1-2-3-4
0339 EDU DISKS 1-2-3-4
0340 EDU DISKS 1-2-3-4

101 GAMES 2

0341 101 GAMES 2
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0350 101 GAMES 2

EDU EDUCATION PACK 8

0351 EDU EDUCATION PACK 8
0352 EDU EDUCATION PACK 8
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0359 EDU EDUCATION PACK 8
0360 EDU EDUCATION PACK 8

EDU DISKS 1-2-3-4

0361 EDU DISKS 1-2-3-4
0362 EDU DISKS 1-2-3-4
0363 EDU DISKS 1-2-3-4
0364 EDU DISKS 1-2-3-4
0365 EDU DISKS 1-2-3-4
0366 EDU DISKS 1-2-3-4
0367 EDU DISKS 1-2-3-4
0368 EDU DISKS 1-2-3-4
0369 EDU DISKS 1-2-3-4
0370 EDU DISKS 1-2-3-4

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ATAPI and the Multimedia Station

■ Price: £89.95 bare ■ Developer/Supplier: Intrinsic Computer Systems
 ☎ 01474 335394 E-Mail: ritchie@icu.idiscover.co.uk

Convert your A1200 or A600 into a towering CD-ROM beast with this Multimedia Station.

With the recent shortage of big box Amigas, it's little wonder that many A1200 users are looking to expand their existing set-ups. As a result, a number of big box expansion systems have started to crop up to give access to more storage and expansion devices.

Solutions usually revolve around HI-Soft's Squirrel SCSI interface plugged into the A1200's PCMCIA slot. The SCSI cable is then fed into a PC tower case providing cheap housing and power for the bare drives. However, this means that a SCSI interface must be purchased and SCSI drives are more expensive than their IDE counterparts. ICS have addressed this problem with their Multimedia Station expansion, giving an A1200 access to PC style IDE CD-ROMs – a feat previously impossible due to Commodore's IDE driver not supporting the necessary standard. This advance is thanks to some software called ATAPI, which ACS are selling with the Multimedia Station and as a separate software package with a lot of other utilities.

Four IDE drives

The ATAPI system, developed by Elaborate Bytes, is a clever bit of software that allows you to plug an IDE CD-ROM drive into an AGA Amiga. Making its debut on PD

while in testing, the package has now been stitched together into a bundle containing the ATAPI driver, Cache CD File System 2, IDE-fix, CD32 Emulator and the PlayCD audio disk player.

Additionally there's hardware available to complement the software – most importantly the A1200 adapter and a four-drive adapter cable, giving the Amiga access to four IDE drives from the IDE interface (rather than the standard 2).

The software is on two disks and comes with two manuals: one for IDE-fix and the other for the Cache CD File System 2 package. Both use the standard Commodore installer utility. The IDE-fix manual is a bit of a token effort referring the user to on-disk documentation.

The Cache CD File System 2 supports an impressive number of CD formats (ISO 9660 Level I+II, RockRidge, Mac HFS, Photo CD and multisession discs) with built-in audio disk support, and comes with good documentation. Performance is pleasing too, with no lengthy waits for CDs to spin up to fetch the next directory. The CD32 emulation program worked on around 50% of games we tested which was a nice little bonus.

Multimedia

ICS have constructed what they refer to as the Multimedia Station,

with the ATAPI software lying at the heart of the system. It's a PC mini tower with the necessary cables terminating in an IDE socket that pokes out a few inches from the base. A second lead needs to be plugged into the A1200's IDE socket on the motherboard, which then connects to the socket on the tower case.

Unfortunately this means the tower must sit tight against the left side of the A1200 keyboard as there isn't enough cable length to reach further. In practice the tower may crowd your left hand when typing. There's just enough space for a Squirrel interface in the PCMCIA slot but it's a tight fit.

The Multimedia Station comes with a two-way power board which allows you to plug in the Amiga power supply and the monitor, and turn on the whole thing from a single switch on the tower.

If you buy the tower with a hard drive, ICS will install the software for you. If you just go for a bare tower case, you get the software on floppies. Mitsumi CD-ROMs are known to work according to the

documentation with the ATAPI device. For around £300 you could take the tower option and fit it with a 0.5Gb hard drive and a Mitsumi CD-ROM drive. Mitsumi CD-ROMs are cheap and known to work well with the ATAPI device.



▲ The tower: making your A1200 bigger and better.

Which option is best for you depends on how confident you are with a screwdriver. The Multimedia Station lacks a little polish but is a good system and when coupled with the excellent software represents keen value for money. ■

Mat Bettinson

ICS MULTIMEDIA STATION

01474	system requirements:	95%
02000	Works with any A600, A1200 and A4000.	
03000	ease of use:	85%
04000	The machine would be good to fit but the monitor cable. Price selling software.	
05000	performance:	90%
06000	System works faultlessly.	
07000	value for money:	91%
08000	£89 for an IDE CD-ROM compatible tower system is a steal.	
09000	OVERALL	
10000	Massive expansion potential at a great price.	
11000		
12000		
13000		
14000		


89

Here's the price list to choose from

Option 1:	With Dual Speed CD drive.	£249.95
Option 2:	With Quad Speed CD drive.	£299.95
Option 3:	With 440Mb Hard drive.	£249.95
Option 4:	With a Dual Speed CD & 440Mb Hard Drive.	£349.95
Option 5:	With a Quad Speed CD & 440Mb Hard Drive.	£399.95
Option 6:	Bare Tower with Dual device & audio leads.	£89.95
Separates:	Cache CDFS II, Atapi, CD32 Software.	£49.95

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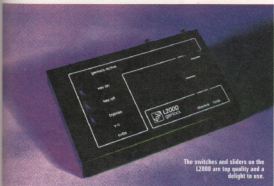
FAX: 01702 200062   PHONE: 01702 202833

Lola L2000 Genlock



■ Price: £352 ■ Developer: Lola ■ Supplier: Lola ☎ 0858 433 501

Mixing titles with video tapes always meant having to accept substantial quality loss, not any more ...



The switches and sliders on the L2000 are top quality and a delight to use.

One of the first realities you have to face when it comes to DIY video production is that each time you copy your master tape the quality degrades and to mix titles with video tape means making a copy.

S-VHS or Hi-8 equipment, with its higher bandwidth, offers enormous advantages over VHS or Video-8 gear when it comes to copying. But to get the best from this equipment you need to use its Y/C cabling and that means getting a Y/C capable genlock. Thankfully, following on from their successful L1500 genlock, Lola have now released the £299 L2000 complete with Y/C capability.

Fine detail

A little larger than a standard VHS cassette, the L2000 is powered by a separate mains unit. There are three video inputs: Y/C, composite and Amiga RGB. The combined

Amiga and video image is output through both Y/C and composite connections and there's an RGB pass-through for monitoring the graphics on a separate screen.

Hooking up the unit to your Amiga couldn't be simpler as Lola have thoughtfully fitted different connectors for the computer and monitor leads and the manual provides excellent instructions for connecting up your video gear.

The Y/C channels use standard mini-din sockets, while the composite video input and output use BNC connectors. BNC to phono adaptors are supplied for those with phono-orientated set-ups, although the BNCs will give better results. This fine attention to detail goes as far as them also providing a small screwdriver to tighten the screws on the BNC sockets.

Both the Y/C and Composite inputs can be connected at the same time, but the unit always uses the Y/C input if there is a Y/C

signal present. This is handy if you have Y/C and composite video sources, as both can be connected with the genlock automatically sensing which is in use. An LED highlights the operative one.

The L2000 fully transcodes the video, so irrespective of the input, both Y/C and Composite outputs are usable. Even if you are using composite video at the moment, owning this type of genlock will serve you well if you later upgrade any of your video equipment.

Pure quality

You can switch between any of the three genlock modes via independent push buttons. The video only and Amiga graphics only modes are self explanatory. The third mode, Key on, replaces colour 0 (normally the background colour) in your graphics with the video picture. All the switches are glitch free so you can instantly jump from one mode to another without it creating any problems with your recording. Each of the switches also sports an LED to confirm

Composite vs Y/C

Video decks such as VHS or Video-8 pass picture information along a single component lead. This can cause problems such as cross-colour disturbance. S-VHS or Hi-8 can use a Y/C lead which keeps the colour and brightness components of the video separate, thus preventing cross-colour disturbance and increasing the resolution.



▲ Graphics are sharp and there is little sign of dot crawl or colour smearing.



▲ Lola's Y/C capability enables you to avoid cross-colour disturbance and produce quality results.

which mode is operational.

Two sliders are also on hand. The first allows you to either fade your graphics up into the video, or cross fade between graphics only and video only, depending on which of the key switches is pressed. The second slider fades the entire output to black. These sliders are well balanced and very smooth in operation.

What really matters though is how it performs. Here the L2000 is unlikely to disappoint. Video is passed through without any signs of degradation. Graphics are sharp with very little evidence of dot crawl, and smearing of colours is kept to a minimum. Overall it produces very pleasing results.

Everything about the L2000 oozes quality, from its build to the smoothness of operation. For the money, Lola's L2000 produces quality output and is top value. ■

Norman Harris

LOLA L2000 GENLOCK

A1500	system requirements:
A1500+	Any Amiga with one video source (VCR or camcorder) and a video recorder.
A1600	ease of use: 95%
	Easy to set up and an absolute delight to use.
A1200	performance: 90%
	Performance very well. All the controls are really smooth.
A1100	value for money: 85%
	You get a whole lot of genlock for the money.
A2000	OVERALL
A3000	Provided you're not after broadcast quality you can't go wrong.
A1000	92%

MultiData 650Mb Optical



■ Price: £644, £599 (internal drive) ■ Developer/Suppliers: Fourth Level Developments

☎ 0117 985 4455 ■ E-Mail: sales@flevel.demon.co.uk

Waahaaay! 650Mb worth of storage in one dual purpose optical drive.

Things are hotting up in the storage stakes. The SyQuest monopoly has been busted apart with the arrival of cheaper and more reliable mass storage solutions. Just look at our storage feature, this month, for proof of that. The MultiData 650Mb optical, based on Panasonic's oddly named 'PD' drive, is just one of the options available.

MultiData handles CDs just like any other CD-ROM except for the fact it's a quad speed unit, capable of shifting over 600K/s off the prolific silver disks. Alternatively, just pop a magenta coloured cartridge into the MultiData's dual purpose platter and it turns into a 650Mb read/write optical drive.

If you buy this from Fourth Level Developments you also get a blank

disk and some really excellent software: *Mo-Miga* and *AFS*, thrown in as well.

Mo-Miga

The *Mo-Miga* software is incredibly complex and offers lots of advantages over conventional hard drive prepping. *Mo-Miga* automatically handles assigns when the device is removed and reinserted. It dismounts all the assigns to that cartridge when it is ejected and reinstates them when the cart is reinserted. The direct upshot is that you could leave software in situ and run from the cart direct. The read times of the unit are perfectly acceptable for this kind of use. The actual cart prepping software is nothing short of brilliant. The carts can easily have partitions

deleted and replaced with new ones without losing any data on the rest of the disk. The control and encryption side of the software also deserves a mention. It's actually possible to force people to log on to using the cart in question providing they are running the same software. From there you may control exactly who can do what, where and amazingly when, with the cart. Directly aimed at 'data by post', it would be possible to create a newly formatted cart and post on to person X. He would then only

have access to the cart between a certain time frame when it must be passed on to person Y. What each person would have access to or even see on the cart is controlled by the creator. Access can even be given by some users so that they may change what access others users have. Confuse you? It did

me and I'm still thinking of applications for this idea. Thankfully, unlike SyQuest cartridges, these carts are alleged to be much more robust so as the prospect of posting 650Mb of data on a regular basis seems like a viable option.

As well as *Mo-Miga* software you also get *AFS* thrown in when you buy from Fourth Level Developments. The access time of the drive is very slow compared to hard drives and *AFS* improves performance times greatly. Formatting with various file systems is also made easier with *Mo-Miga*.

Performance

Writing at around 350KB per second and reading at 888K/s according to DiskSpeed 4.2, speed is not MultiData's main claim to fame (it just had to say that). However, it's fast enough to be quite usable as a shovel device if not as scratch pad storage. In this light, the drive is aimed at people aiming to store large quantities of data and possibly transport that data. In this case, the high price tag may well be justified though the unit is well



▲ It's possible to audit the cartridges run with the *Mo-Miga* software. Listing all operations performed by a specific user of the cartridge.



▲ Here a user is being edited. It's possible to set exactly what kind of things the user can do to the cartridge and when.

out of the range of the home user. Such users would be better off with the faster and cheaper Zip drive anyway. MultiData is good value in terms of cost per megabyte. The cartridges cost a whopping £50 each but considering that's only 7.7p per Megabyte and Zip media is 13p per Megabyte, it's actually pretty darn good. ■

Mat Bettinson



▲ The dual purpose platter of the MultiData machine takes either a CD as shown or a 650Mb optical cartridge shown on top of the unit.

MULTIDATA 650Mb £644

AS50	system requirements:	
	Any Amiga with SCSI interface.	
AS50 +		
AS50	ease of use	87%
	Software easily installed and user friendly making it pleasant to use.	
A1200	performance	90%
	Quick read/write is great but could be with being a tad faster.	
A1500	value for money	82%
	Drive is over expensive but the software makes up for this.	
A2000		
A3000	OVERALL	
A4000	A powerful and professional storage system.	91

Sonnet Doubler

■ Price: £399.95 ■ Developer: Sonnet Technologies ■ Supplier: Bittersoft ☎ 01908 261466

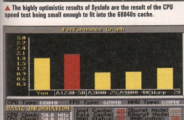
An overclocked accelerator could improve performance beyond belief. Sonnet Doubler nearly makes it.

Accelerating the Amiga to modern day computing speeds is an expensive business. Previously, the cheapest 68040 accelerator for the A4000 cost in excess of £750. That's before you even get started with extra memory and the like.

Obviously there's a real need for realistically priced acceleration and this is where US based Sonnet Technologies have come in. Targeted at A4000/40s only, the Sonnet Doubler replaces the 25MHz 68040 CPU on the A3640 CPU card present in A4000/40s with a daughter board assembly that plugs into the old 68040's socket.

Overclocked

The Doubler has its own 68040 clocked at 50MHz. This is suspect because 50MHz 68040s haven't yet been produced by Motorola since they moved onto the 68060 for the necessary technology for such speeds. So the 68040 is evidently 'overclocked'. Annoyingly, the actual chip speed rating has been covered with a black blob of glue. This is out of order as the part could be a 25MHz unit for all we know.



▲ The memory test using FPU co-processor code. The 50MHz 68040 is faster than the 68040 due to the missing instructions in the 68040.

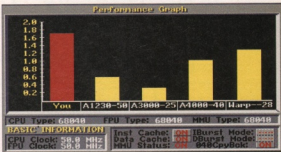
Hot air worries

The overclocked 68040 poses a problem as the stock 25MHz part already has a heatsink. Sonnet Technologies have pulled out all the stops to try to cool the CPU. On top of the CPU there is a Peltier Effect heat pump. Passing current through this component will make one side cool and the other hot. Often used in solid state fridges, in the Doubler the cool side is placed on the CPU and the hot on a large heatsink assembly on top. Finally a small cooling fan tops off the unit.

The heatsink can get very hot indeed and you can actually feel hot air being passed out of the unit. I was worried that the unit would fall inside our A4000 with the office temperature soaring to 30+ degrees in the heat of summer. So, not wanting to risk it, I left the case off for much of the testing. In normal ambient temperature conditions I presume the unit will be fine but with no ambient air temperature ratings provided with the Sonnet Doubler this is a very real concern. Fortunately, it's covered by a year's warranty.

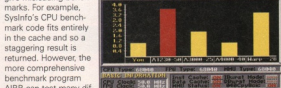
The Sonnet Doubler does provide a healthy performance boost though it's definitely not twice the stock A4000/40's speed. One reason for this is the infamous crippled memory bus interface on the 4000 and 3640 CPU board combination.

Some activities are hardly affected at all with the CPU being clocked at 50MHz but the memory access remaining at 25MHz. However, since the 68040 has a large 8K cache, any programs running within this area will run at the full speed capability of the 50MHz 68040. Very fast indeed. This can



▲ The emulation test. Here the 50MHz 68040 shows what it's capable of on a good day while running typical emulator code such as PC-Tank or Frodo.

give misleading benchmarks. For example, SysInfo's CPU benchmark code fits entirely in the cache and so a staggering result is returned. However, the more comprehensive benchmark program AIBB can test many different aspects of the machine's performance including memory speed. Here we can see the weakness of the 3640 and Sonnet Doubler combination on many tests. The machine didn't feel much faster with the Doubler in place though that's mainly the AGA chip-set holding back the machine's display as usual. CPU intensive tasks did get a good boost but some activities such as archiving with LHA or LZX hardly changed at all, obviously due to the heavy memory bus access of these programs.



▲ The memory test. Here the A4000/40s crippled memory bus shows its weakness.

once the mass production of the unit for the new Amiga 4000T/60 begins. It would be my recommendation to either lash out on an accelerator board that offers more or stick with the stock machine unless you really feel that an extra 50% performance or so is essential and your budget only stretches this far. ■

Mat Bettinson

Selling limbs

The Sonnet Doubler is good value for money if you compare it to an expensive new 68040 based accelerator and believe the SysInfo benchmarks. However, as we've seen the SysInfo benchmarks are not a true representation of its capabilities.

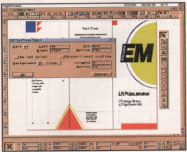
Coming with only a single photocopied sheet of instructions and a CPU extraction tool, the Doubler is not great value for money at a price tag of £400. I only hope Blizzard will reduce the price of its Cyberstorm accelerator drastically

SONNET DOUBLER £399.95

7500	System requirements: 68040 A3640 CPU card as found in A4000/40s.
6500	ease of use.....90% Play it and go. Couldn't be easier than that one could it?
5500	performance.....75% A reasonable boost but the 3640 card holds it back.
4500	value for money.....60% Reasonable considering what's involved.
3500	OVERALL Reasonable speed boost at perhaps too high a price.
2500	73 %
1500	
500	

PageStream 3.0i

■ Price: £134.95 ■ Developer and Supplier: Soft-Logik Publishing ☎ 001 314 256 9595 (check special offer page for other prices)



▲ Text frames in PageStream 3.0i can have columns, be made transparent or opaque and even told not to print.



for example, PageStream 3 is for power users. Version 3 requires a hard drive and at least 6Mb of memory if you want to use the program creatively. It will run in less memory of

course, but I wouldn't recommend it unless your documents are very simple indeed. I also found when using it on an un-accelerated 1200, it was a tad slow.

To illustrate how large PageStream 3 is, the program file alone requires 1.2Mb of disk space and that's without any of its support files. Add those to the arithmetic and you'll find PageStream 3 eating up 2.5Mb of disk space for a minimum install and 12Mb plus for all the files in the package. The weight gain is due to an increase in the number of features now found in PageStream 3.

You've got PageStream 2.2 on this month's cover disk. Now check out the latest update: 3.0i, forerunner for the much awaited 3.1.

Learning how to use it though may be a bit tough. Unlike version 2, which is fairly simple and intuitive to use, PageStream 3.1 will have so many functions and functions within functions, it might be bewildering for a casual user.

Made up of word processor, paint program, drawing package as well as page layout features PageStream 3.1 is set to be one killer program. As well as the program you get a very good stand-alone art package called BME and another program called PageLiner for editing text. That's not all. Many of you will have heard of Art Expression, a drawing package published by Soft-Logik that was recently discontinued. The reason it disappeared off the shelves, was because Soft-Logik are busy placing many of Art Expression's features in PageStream 3. We took a look at 3.0i the forerunner for PageStream 3.1 and were very impressed by what we saw.

Flexible friend

Experience with PageStream 2 will be a big plus if you intend getting to grips with version 3.1. The biggest and most noticeable thing about PageStream 3.1 is the flexi-



▲ Text effects like placing text on a curve, are possible thanks to a TextFit extension available separately from Soft-Logik.

bility of it all. From creating a page to printing it, every function along the way is packed with options. For the power user who wants this level of functionality, PageStream 3.1 may well be the ultimate publishing tool when it's finished. Yet for those who are easily over-awed by such things, PageStream 3.1 may also be a right handful to start off with. But then, this discomfort is to be expected at this end of the market.

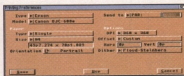
The key to PageStream 3.1's power comes with its handling of text and graphics. Looking at text first, as well as being able to use PostScript Type 1 fonts, Intellifont fonts and Soft-Logik's outline fonts, PageStream 3.1 can also make use of True Type fonts thanks to one of the many external filters/extensions that are available as extras. Text effects is another

optional feature. It may be considered a bit gimmicky by many, but I've always believed that the more tools you have in your toolbox, the better equipped you will be when called upon to create something 'gimmicky'.

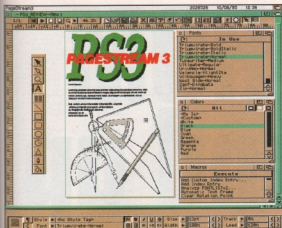
What else is on offer?

If PageStream 3.0i is a little too heavy on your pocket, hardware or perhaps sounds a bit daunting, what other options do you have? First up, there's PageStream's old sparring partner, Professional Draw 4.1, sister program to Professional Draw 3 which appeared on CU Amiga's June cover disk. Priced at £49.95 (LH Publishing 01908 370230), one of ProPage's principle features is that it lets you send drawings back and forth between itself and ProDraw 3. It also comes with a 200 page DIY book to teach you about DTP using ProPage.

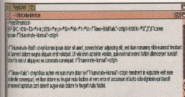
You could also try a word publisher like Wordworth or Final Writer. These are starting to get more and more DTP like features as each upgrade comes and goes. They also have many features like thesauruses and grammar checkers not found in PageStream or ProPage. Final Writer (Softwood Europe (£74.95, tel: 01773 836 781) has just been upgraded to version 4 and now has a grammar checker among other things. Wordworth 3 (£69, Digita International 01395 270 273) meanwhile is also being upgraded and although nothing has been made public yet, I can assure you it's going to make a big splash when released.



▲ PageStream 3.0i continues to use its own printer drivers and comes with a large variety for dot-matrix and PostScript printers.



▲ Anyone needing a high end DTP program, should take a good look at PageStream 3 when it's finished. It is without a doubt, the most powerful DTP package on the Amiga, perhaps any computer.



▲ In the PageStream 3.0i package comes a word processor called PageLineer for editing text off the page.

A text feature many will find useful is *PageStream 3.1's* text editor called *PageLineer*. This mini word processor lets you edit large amounts of text in a program dedicated to word crunching. Just like the Article Editor in *Professional Page*, you can swap text back and forth between *PageStream 3.1* and *PageLineer*, as and when you need to change something. Text can also be checked for spelling mistakes, and bits and pieces cut and pasted in an environment where such tasks can be accomplished quickly. All I ask is for Soft-Logic to let me hide the formatting codes, as it makes an article confusing to edit.

Page layout

One feature which I've missed on the Amiga for a long time, was being able to easily place text in a shape. So many documents containing short pieces of text, could be livened up simply by placing the text in the shape of an object. Let's say you're designing a leaflet about a telephone service. With *PageStream 3.1*, you can create a drawing in the shape of a telephone and then insert text into that drawing.

Which leads me to graphics. Armed with *PageStream 3.1*, not

only can you import a variety of graphics formats, but they can be exported as well. For me though,

PageStream 3.1's greatest graphics feature is its ability to create and edit structured drawings. So many people prefer to work with structured drawings because of the excellent printed quality you get, that a drawing package is always a necessity. Most of you already have one as *ProDraw 3* appeared on a recent CU Amiga cover disk. Though it seems to work best with *ProPage*.

With *Art Expression* gone, there isn't a sister drawing program for *PageStream 3.1* as yet, but then that doesn't matter too much because you get all the necessary drawing and editing tools included with the program. This enables you to do most of what *Art Expression* was capable of, without having to have *Art Expression*. One of the few functions missing in *PageStream* from *Art Expression*, is text on a curve, but with the optional 'Text Effects' filter, that too has been taken care of.

Bitmap editing

Almost as significant as all these drawing tools, is *BME*, a program for editing bitmap images and sending them back and forth between

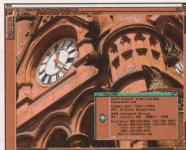
Expected highlights of version 3.1

- All-in-one page layout, bitmap editor, word processing and drawing package
- Powerful text formatting features such as a dual tagging system
- Integral Pantone colour catalogue
- Text Effects (optional)
- Wordworth document Import Filter (optional)
- Flexible font support
- ARexx
- Gradient fills for objects
- Extensive manual and on-line help
- Import *PageStream 2* and *ProPage* documents
- Multiple documents open at once (memory permitting)
- High-end professional options for colour output
- Superb Edit palette

itself and *PageStream 3.1*. Not for the first time have I wanted to crop an image after importing it onto my page. With *PageStream 3.1*, this and much more can be done without any tears. You might for example, print your document and decide a picture lacks a certain something. With *BME*, that something can be added very easily providing you have plenty of memory. One of the Amigas I tested *PageStream 3.0i* with, has only 7Mb of memory and whereas for normal use that amount is fine, running *PageStream 3.0i* and *BME* at the same time, soon used it all up.

BME can be run on its own though, enabling you to crop, add effects, colourise and scale pictures without having to reach for another image processor or paint program. Sharing data with other applications that don't come with *PageStream* is also possible thanks to *PageStream 3.1's* ARexx support.

As someone who makes a living from DTP, producing the Amiga publishing magazine *Em* and books like *Digital International's Wordworth Companion*, *PageStream 3.1* will be a blessing when Soft-Logic have fully sorted it.



▲ One of the programs that comes with *PageStream 3.0i* is *BME*, a mighty paint program for editing bitmap images.

Nothing bad

The only negative things I could come up with are *PageStream 3.0i's* price and its state of readiness for the market. Many Amiga owners who do the odd bit of DTP might find the price too high. That's not a criticism because this is a powerful program packed with features and I don't expect such power to be cheap in Amiga terms. As for its state of readiness, the version I have is a bit rough around the edges, but then it is a beta copy, so bear that in mind in relation to the comments made.

The version to wait for is 3.1. If that has all the promised features, (and only a few are now missing in 3.0i) and *Soft-Logic* can speed it up so you don't spend all day waiting for some functions to complete their tasks, *PageStream 3.1* will be ready and waiting to clean up. Soft-Logic do, however, still have a way to go before it's a hundred percent reliable but having seen the advances Soft-Logic have made in the last 10 months, it shouldn't be too long before we have the first killer DTP application on the Amiga. ■

Larry Hickmott

PAGESTREAM 3.0i

A000	system requirements:
A000 +	Workbench 2 or higher, 2Mb Memory (5-8 Mb Recommended and a large hard drive.
A000	ease of use.....85%
A1200	fits so much power up its sleeves, the learning curve is bound to be a smooth performance.....85%
A1500	as an un-accelerated T206, <i>PageStream 3.0i</i> is quite slow. It should get better however as Soft-Logic continue to develop it. value for money.....82%
A3000	<i>PageStream 3.0i</i> does Group compared to similar programs on the PC and Mac.
A3000	OVERALL
A3000	An Amiga killer DTP application at last!
A4000	90%



The latest in the epic Aminet series rubs shoulders with a top quality DTP fonts collection this month, with something for AMOS fans too.

CD-ROM Round up

Aminet 7

Each volume of the Aminet series is not quite a whole new set of files, but the majority of data is either completely new or updated versions of previously published files. Aminet 7 boasts 500Mb of brand new material. The files are split into a number of categories: business software, comms, demos, development tools, disk tools, documents, games, graphics software, hardware related utilities, miscellaneous, modules, music software, text software, utilities and images. Images is the theme for this volume, and there are 10,000 of them here.

Almost all the files (apart from a few JPEGs) are stored as LHA archives, which can be a bit of a pain if you just want to browse, but there are plenty of indexing and unarchiving tools to help you out.

Available from: PD Soft,
1 Bryant Avenue, Southend On
Sea, Essex
SS1 2YD.
Tel: 01702
466 933
Price: £14.99

90 %

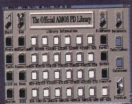
AMOS PD

AMOS is still a very popular programming language and it has given many beginner programmers the chance to create some wonderful software.

The AMOS PD library is home to a mountain of tools and data files for AMOS programmers and plenty of AMOS creations, ranging from games to spreadsheets. There are sprites stored in 100 AMOS sprite banks, music banks, 800 sound samples, over 1600 source code files and 250 text banks. Workbench, Sernet and ParNet are also included for networking a CDTV or CD32 with an Amiga for CD-ROM access. If you're one of the thousands that have been bitten by the AMOS bug, then you'll find plenty to get your teeth into on this CD.

Available from: PD Soft,
1 Bryant Avenue, Southend
On Sea, Essex SS1 2YD. Tel:
01702 466 933 Price: £14.99

80 %



Weird Science CD Fonts

This is just the thing to give this month's PageStream 2 cover disk a massive boost. It's a collection of fonts of many different formats: Adobe, CG, Bitmap, IFF and coloured, Postscript, PageStream and ProDraw, TrueType and PCX, Calamus and GDOS. CD-ROM is the perfect medium, as fonts can take up a fair amount of disk space. There are stacks of different styles, with plenty of the standard fonts along with loads of quirky and stylised alternatives. This CD would also come in handy should you need to use another DTP system at any time, whether that means another Amiga, or even a PC or Apple

Mac. A must if you want to get the most from your setup.

Available from: PD Soft, 1 Bryant Avenue,
Southend On Sea, Essex SS1 2YD. Tel: 01702
466 933 Price: £7.99

88 %

Handwritten 42pt
FLAMINGO 72PT
Olympia 108
ROTHMAN 72PT
Upright 72pt

BIG
FONT

10BIT Software

Est 1988.

PUBLIC DOMAIN SOFTWARE

3642 MORTAL KUMQATZ 3
No guesses what this is
K3411 STRANGE CARDSET
For all klondikes
K3540 BEAVIS CARDBET
For Klondike 1, 2 & 3
K3539 WANGA MANACS
Another Klondike cardset
3540 MORTAL KUMQATZ 3

2 Player 3D shooter game
3823/ABIGAD OF WAR HELPER
Type, Map & Units of help
3236 (AM) BLACK DAWN 5
A new beginning, Super!

3629 REMAINS V2.0
AddressBook, Diary, Reminder etc
3834 KIDS DISK 7
More fun for the kids

3632 HO GAMES INSTALLERS NO.4
Install all the latest games
3599 (ARC) PICTURE BOOK
Superb new AGA demo

K3581 (ARC) AMAZED DEMO
Shooting game for early
3530 TENPIRA DEMO

Another very nice AGA demo
3369 ANTOINE SLOGSHOES
Excellent wilderness from Scopes

3828 (AR) SURFING THE JAZZ WAVE
Very nice and music disc
3627 MADC WORKBENCH PACK 12

Backdrops & startup pic
3628 STAR WARS GALAXY
Another Klondike cardset

K3625 THE MASK CARDSET
Bundles for all slotters
3628 DREW QUB2 NO. 2

Updated script by Fubar
3629 (AR) PACTESTING PATCH 1H
Latest available patch disc

K3602 EXCELLENT CARD GAMES II
Revised version for all slotters
3621 DPOG UTILS NO. 2

More directory open titles
3625 ROADWORKS V1.5
Thumbnail Pic Cat Maker

3818 PHOTOGENICS V1.2
Updatable demo version
3618 DPOG 5 PATCH

Package v1.5 to v.11
3617 THIRD DIMENSION NO. 18
Latest Map for all 3D con kit users

K3538 DEVILS ABOVE
3D virtual reality game
3615 WORDSEARCH DESIGNER

Updated to earlier version
3614 ENDOCK V1.4

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3783 THIRD DIMENSION NO. 14

30 cones kit disk map
3782 ACT OF WAR MISSIONS 3
Requires register card
K3781 STARTUP & BACKDROPS

Pictures for workshop 3
3780 (AR) ROM NO. 4
Scene disk map

K3779 MOMENTS
Dance AGA demo
3787 SANITY ROOTS II

Superb script
K3777 HO GAMES INSTALLER 5
Includes dozens of new titles

3776 BLITZ BLANKET V2.60
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K3775 FREEMAN SAM

Klondike cardset
3774 (AR) BNR BACKDROPS
Based on Star Wars

3773 LEGIONS OF DAWN
V1.1 game, needs a new required
3772 MOSAIC V1.30

Latest wallpaper
K3771 WALLACE AND GROMIT
Klondike cardset

K3770 ROSSIE AND JIM CARDSET
For Klondike AGA
3769 (AR) SHAREWORLD NO. 4

Cybernetic disk map
3768 XFILES GUIDE
Slime serial guide

K3765 LECH DEMO
AGA demo from freeware
3764 NEW AND STAMPY CARDSET

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3762 MORSE CODE TRAINER
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3760 ROSS HOT GAMES NO. 15
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3759 ROSS HOT LOTTERY STASH
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3758 MAGIC ELECTION V1.7

Changes SFX also on Bontop
K3757 FRACTALS CARDSET
For all klondikes

K3756 EROTICA CARDSET
For all klondikes
3755 NEW UTILS NO. 13

New batch of hot util.
3754 NEW UTILS NO. 11

Even more icons
3753 MWR ICONS AND BRUSHES
Maze chase for magic workshop
3752 ROSS HOT STASH NO 39

Another hot title
3751 BONTOP 8 V. 3.03
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3750 ROSS HOT STASH NO. 38
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3749 TEIM V4.3 EXTRAS & LRS

HO game!
3748 TEIM V4.3 000 VERSION
Includes Local

3747 TEIM V4.2 & LOCAL
Archived with LHA. NO installer!
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K3745 NEWSBROS CARDSET
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3744 THE CRACKER 2 V2.14
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Image library for Bontop

3733 PC TASK V3.1
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PD Scene

**Tony Horgan
decides what's
hot and what's
below freezing
in this selection
of offerings
from the
Public Domain.**

Picture Book AGA demo

Best known for the classic Big Time Sensuality demo, Axis are back with this quietly confident four-disk production. Low-slung funky drums and lazy tunes help mask the fact that there's really not that much going on in the visual department. Most of the graphics are standard demo fare, but it's tied together extremely neatly with lots of swish details, making it well worth checking out.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands WV12 5NH. Tel: 01922 710 985 Price: £4 plus 50p P+P.



80 9/10

Planet M AGA demo

The second demo from Melon this month offers another sequence of bright, inventive graphics and music, this time of a more technoid persuasion. Pop-art cartoon graphics are mixed up with doctored digitised stills and animations. Anyone offended by naked women should steer clear, although sex isn't a predominant theme. Melon manage to combine cutting edge routines with some real low tech effects and get away with it.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands WV12 5NH. Tel: 01922 710 985 Price: £1 plus 50p P+P.



81 9/10

Baygon AGA demo

Melon Design take a trip back to the 70s with Baygon and turn out another batch of pastel-tinted psychedelia with plenty of original effects. Backed by a repetitive rap of "Let's go back to school... to the old school" and a crunchy hip hop break, it's a relief from the banging techno of the competition.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands WV12 5NH. Tel: 01922 710 985 Price: £1 plus 50p P+P.



88 9/10

Martial Morphers game

I makes you wonder why they bother sometimes. *Martial Morphers* is an attempt at a karate beat 'em up, but must surely rank as one of the worst ever to appear on our favourite computer.

Take the graphics for example. Most people would expect to draw a series of animations frames for each move, but not these guys. They've drawn a few key frames, and then used something like *DPaint* to morph the frames in between! Try a high kick, and you'll notice the character's head splitting in half, as one side of the body peels off to form the out-stretched leg!



Available from: F1 Licenceware, 31 Wellington Road, Exeter, Devon EX2 9DU. Tel: 01392 493 580. Price: £3.99 including P+P (licenceware).

37 9/10

Rebellion game

Rebellion harks back to the days when Jeff Minter ruled with his simple but super-fast shoot 'em ups. This isn't nearly as polished as a Minter production, but it's got the speed and simplicity. All you do is thrust around a two dimensional area of space, zapping aliens and picking up the good guys. Good fun.

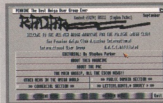
Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands WV12 5NH. Tel: 01922 710 995. Price: £1 plus 50p P+P.



78 %

Diskmags

Radar september issue



This launch issue of Radar, a diskmag run by the Pennine Amiga Club is aimed at just about all Amiga users. It covers commercial and PD software. It includes reviews of *Final Writer 2*, *Lightwave 3.5*, *PageSetter 3*, *Dreamweb* and *Bloodnet*. There are also solutions for *Legends of Valour*, *Ween*, *Curse of Enchantia*, *Darkseed*, *Fireforce*, *Goblins 2* and *KGB*. A good place to start if you want to get into an Amiga club.

Available from:
Steven Parker, Hillfoot, 51 Station Road,
Baldon, Shipley,
West Yorks, BD17
6HS. Tel: 01274 585
332. Price: £2 plus
50p P+P.

75 %

The Word issue 6

The Word is a more slick affair than *Radar*, employing demo coder techniques to give the articles a bit of extra sparkle. The articles vary in subject from Amiga and demo scene gossip to anything the compilers want to go on about. The addition of non-Amiga features gives you a chance to take a break from reading through screens of text explaining what Escom should do and how everyone else in the world thinks they could do better. An entertaining read.

Available from: 17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield, WF1 1DH. Tel: 01924 366 982. Price: £1 plus 50p P+P.

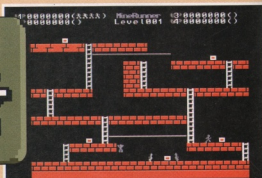


79 %

Assassins 241 game compilation

Lode Runner is the star of this three-game compilation from *Assassins*. Unlike many other 'classics' that leave you wondering what you saw in them all those years ago, *Lode Runner* is still highly addictive and this is a particularly accurate conversion, essential for platform fans. There's also a good version of the card game 'pairs' with cute cartoon graphics, in which you have to find matching pairs of cards using as few moves as possible. The disk is rounded off by a version of *Shanghai*. Definitely one of the better *Assassins* disks.

Available from: Seasoft, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex, BN17 7PA. Tel: 01903 850 378. Disk no. ASI 241. Price: £1 plus 50p P+P.



87 %

Artcore AGA slideshow

If this was just a normal slideshow it would be pretty good, but it's made even better by the novel method of selecting the pictures. You walk around a *Doom*-style 3D gallery using the mouse and then when you see a picture you like, a click of the button brings it up on screen in all its high resolution glory. Some of the pictures are amazingly detailed, most of them following the familiar fantasy themes of monsters, warriors and nude women.

Available from: Freestyle PD,
108 Woodside Way, Short Heath,
Willenhall, West Midlands WV12 5NH.
Price: £1 plus 50p P+P.



82 %

Demo competition

Listen up all you aspiring demo creators out there. A demo competition is being held on the 21st of October 1995 at the Gibbet Hill Rectory, University of Warwick, Coventry.

There will be prize money for the best demo, music and graphics.

The Digital Candy BBS is sponsoring the event, which is open to both Amiga and PC users.

Entry is £10 in advance, £12 on the door and in an attempt to get some women down there, £5 for female demo makers.

So get busy and if you would like more information contact Robert King, Digital Symposium, 20 Providence Way, Baldock, Herts SG7 6TT. Tel: 01462 491 553. Email: silk & dcs.warwick.ac.uk or WWW: <http://www.dcs.warwick.ac.uk/~silk/index.html>.

Dark Angel game

Looks good doesn't it? It almost is, but sadly it doesn't quite make it. As you've probably guessed from the graphics, *Dark Angel* is a *Flashback* derivative. However, *Dark Angel* suffers from a terminal lack of



speed. As you walk off the screen, the next one is loaded from disk. This only takes a few seconds, but fills the game with constant interruptions. This becomes a particularly annoying problem when you're faced with an enemy that shoots you the moment the screen is loaded, which is totally unfair.

The unresponsive controls add to the frustration. If this was re-programmed (maybe with *Blitz Basic*) so as to increase the speed, it could well be a decent little game.



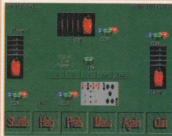
Available from:
17 Bit Software,
1st Floor Offices,
2/8 Market Street,
Wakefield WF1
1DH. Tel: 01924
366 982.
Price: £1 plus
50p P+P.

60 %

Excellent Card Games 3 AGA card games

If you like a game of cards, you won't want to be without this, the latest in the Excellent Card Games series. It comes complete with five different games: Poker; Czarina; Colours; Scottish and Napoleon. Each game comes with instructions, and those games that require extra players have computer-controlled opponents.

Unlike some shoddily programmed card games, this one is impressively slick and highly playable. The full version (£14.99) allows you to play without the interruptions of registration boxes cropping up.



Available from:
OnLine PD,
1 The Cloisters,
Halsall Lane, Formby,
Liverpool L37 3PX.
Tel: 01704 834 335.
BBS: 01704 834 583.
Disk no. OX221.
Price: 75p plus
75 P+P.

83 %

PD Utilities

Learn French,
make records,
process pictures
and generally
increase your
productivity with
this month's
serious PD, as
perused by
Tony Horgan.

Disk Helper 9 utility collection

There are 14 utilities on the disk. *Icon Image 1.06* is a tool for renewing icon graphics. *Easy WB 1.2* allows you to drag data files onto an icon, which automatically launches the relevant application. *Fullbench* gives your Workbench screen an extra centimetre or so by removing the menu bar from the display until the right mouse button is pressed.

Wasted Time 1.1c lets you know how much time you've 'wasted' (used) since you last booted your Amiga. *Clear RAM 1.01* deletes everything from the RAM: disk except diskinfo, ENV, T and Clipboards. *HD Sleep* turns off your hard drive motor (but didn't do anything to ours). *Makefast* converts Chip RAM to pseudo Fast RAM for compatibility with certain programs. *CalClock 1.0* is a neat clock and calendar combination. *Smart Copy 1.4* copies files from a hard drive onto multiple floppies, allowing multi-selections greater than a single floppy capacity.

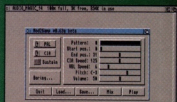
Chunkit 1.0 is a hex editor that leaves the file's contents formatted according to its type. *Fill 2.0* is another intelligent file copy utility.

Cybermatic Attorney 1.0 is a collection of legal documents. *Drop n Act* is a file viewer/player utility. All Workbench users should find a few things here to boost productivity.

Available from: Seaford, Unit 3, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex BN17 7PA.
Tel: 01903 850 378. Price: £1.50 plus 50p P+P.

80 %

Audio Magic 14 sound utilities



The most interesting tool here is *Mod2Smp*, which converts *ProTracker* modules into single samples. This means you can create a four-channel backing track, convert it to a sample and then use that sample within a new module, thus squeezing four channels into one. It's far from foolproof, has problems with tempos and the results are a lacking in treble content, but it's a start.

Also on the disk are three audio CD controllers (*Interplay 2.0*, *CDTV Player 2.1* and *CD Player 1.0*), a sample ripper that scans raw data from disks, and *MiniPlay*, a small module player.

Available from: Seaford, Unit 3, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex, BN17 7PA.
Tel: 01903 850 378.
Price: £1.50 plus 50p P+P.

68 %

Multivision 9 graphics utilities

A handy collection of graphics utilities has been thrown together on Multivision 9 and although each one may only have one or two features that you find useful, together they're a handy set.

ArtPro 0.87 is a simple image file converter with a few processing tools. It loads and saves the basic Amiga-friendly formats and has some handy realtime colour balance controls that act directly on the screen palette (apart from in HAM mode). *D-Pix 1.1* is a clever program that uses anti-alias routines to de-pixelate expanded graphics, which it does in just two colours, so it's useful for DTP clipart in particular. This version has the Load option disabled. *ChipRip* is a standard graphics ripper. *GFX Con 1.4* is an accomplished image file converter with a few processing tools, and *GIF to IFF 2.0* converts GIF images to IFF.

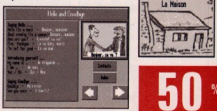
Available from: Seaford, Unit 3, Martello Enterprise Centre, Courtwick Lane, Littlehampton, West Sussex, BN17 7PA. Tel: 01903 850 378. Price: £1.50 plus 50p P+P.

88 %

French Tutor language education

The PD version of *French Tutor* is unfortunately limited to just a few vocabulary lists in the form of a *Hyperbook* document. The best part is the brief quiz, but there's still not enough on offer to tempt the casual French student to register to the full program. A French-English dictionary might be more useful.

Available from: OnLine PD, 1 The Cloisters Halsall Lane, Formby, Liverpool, L37 3PX. Tel: 01704 834 35.
BBS: 01704 834 583. Disk no. OUI79. Price: 75p plus 75p P+P.



50 %

Disk Helper 10

utility collection

Yet another collection from the Assassins brings more obscure tools. Jonathan Potter's *OSK 1.2* (on-screen keyboard) could be a lifesaver if your keyboard ever fails. It draws a keyboard in a window on the Workbench, the keys of which can be clicked on with the mouse to enter text into other Workbench windows. *MFT 1.3* is one command that can be used in place of many standard CLI commands and *XPK Knight 1.03* is an XPK compression/decompression tool with a graphical front end.

CD32 Disk Saver allows you to save CD32 game positions onto a floppy instead of the 1K of non-volatile RAM. *WBx* is a Workbench LHA file extractor, *Find Crunch* digs out crunched data from within files, AGA disables AGA modes. *ResRun* is useful for low-memory machines, as it resets the Amiga and then runs your selected program. *SerMouse* permits the use of PC mice with your Amiga.

This is a particularly useful bundle of tools, and though dedicated net surfers may regard some as rather old hat, most others should get plenty of use from them.

Available from: Seasoft,
Unit 3, Martello Enterprise
Centre, Courtwick Lane,
Littlehampton,
West Sussex BN17 7PA.

Tel: 01903
850 378.
Price: £1.50
plus 50p
P+P.

90%
off

Atlanta Samples & Examples 1

sound samples

It makes a change to receive a disk of good quality, useful sound samples. These sounds are aimed primarily at dance music producers and come with a selection of brief example modules.

Synth stabs and chords make up a hefty portion of the disk, along with a few TR 909 drums, a couple of percussion loops and the odd sound effect thrown in for good measure.

While not actually PD, it's offered for a PD price. Recommended.

Available from: M Taylor,
Atlanta, 85 Bailey Street,
Deri, Bargoed,
Mid Glamorgan CF8 9HW,
Wales.

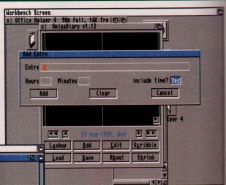
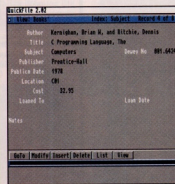
Price:
£2.50
including
P+P.

85%
off

Office Helper 4

productivity tools

It's productivity time! OK, don't get too excited, we'll take this collection one step at a time. *Amiga Diary 1.13* is first off the blocks, and unsurprisingly it's a diary that sits on your Workbench and saves you flicking through one of those old fashioned paper books to find out what's happening in the near future. *Quick File 2.02* is a neat little database system, *FH Spread 2.01* is a spreadsheet and



Intra 2.16 is an invoice database system.

If you're starting up a small business, but haven't managed to get more than a couple of quid out of your bank manager, this could be just the thing!

Available from: Seasoft, Unit 3, Martello
Enterprise Centre, Courtwick Lane,
Littlehampton, West
Sussex, BN17 7PA. Tel:
01903 850 378. Price:
£1.50 plus 50p P+P.

82%
off

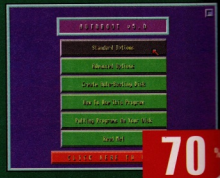
Autoboot 5.0

boot disk preparation

Making an autobooting disk is not as simple as it may sound. Depending on what is going on the disk, you'll need to include all manner of supplementary files in the system drawers. Finding out which files need to go where can be a pain, as can actually compiling the system folders themselves.

Autoboot aims to make the whole thing a lot easier by doing all of the hard work for you. Unfortunately this version is marred by a bug that makes you wait a few seconds after each menu selection for no apparent reason (when tested on an A1200). This aside, the program works well, and is recommended for anyone wanting to put their own productions onto autobooting disks.

Available from: C Yarnall, 93 Manchester Road,
Wilmslow, Cheshire. Price: £1 plus 50p P+P.



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BUYERS GUIDE 100 ●

Want to make your Amiga graphics shine? Follow our buyers guide to video digitisers and you won't be disappointed with the results.

OCTAMED 5.04 102 ●

If you're looking for something a bit spesh, then turn to page 102 where we try our hand at creating some special effects.

IMAGE FX 104 ●

See our heartthrob designer transformed before your very eyes with some of Image FX's special features.

PRODRAW 106 ●

Get behind the eight ball with a flourish in the final part of our ProDraw series.

GRAPHICS MASTERCLASS 109 ●

Wow your friends with some funky 3D stereograms created in Personal Paint.

COMMS 110 ●

Exploring the World Wide Web is made simple thanks to the only Amiga WWW browser Amosaic: we show you where to get it and how to use it.

NET GOD 112 ●

Our internet guru returns with news on what's happening on the 'net and he's got a few things to say as well.

VIDEOTRACKER 113 ●

COMPETITION RESULTS

There were masses of entries to our VideoTracker competition, we finally managed to come up with some of the best and the ultimate winner.

FAQ 115

You've got the accelerator you wanted, it should be simple from here on shouldn't it? Maybe not. Find out what the common problems are when it comes to accelerators.

Q&A MASTERCLASS 120

There are lots of Public Domain programs around which are designed specifically for your Workbench. We take a look at the Aminet 6 collection.

Q+A 122

The boys are back and this time they're taking no prisoners. Anyone got a problem with their Amiga? Well these two troubleshooters will sort it out.

BACKCHAT 126

What's happened to the One, what's up with Escom; just two of the questions posed in your readers forum and a little bit of religion thrown in as well.

POINTS OF VIEW 130

'In with old and out with the new' that was Mat Bettinson's games motto until he saw Gloom and Alien Breed that is.



Video digitisers are the subject of this month's buyers guide, ranging from

£30 grabbers to £2,000 video editing suites.

Special effects are the order of the day for the OctaMED and Image FX

tutorials, while Net God has a step-by-step guide to setting up your Amiga for Internet Web access. Results of the VideoTracker demo compo are here with all the rest of our regular tips, tutorials and opinions.



Regulars

Buyers Guide

Video Digitisers

Make the most of your Amiga's amazing graphics with a video digitiser. Whatever level you're at, there's one out there to suit you.

Video digitisers were once a novelty but now they're an essential part of any computer graphic artist's setup. With a video digitiser connected to your Amiga, the possibilities for creating photo-realistic pictures and animations are boundless. No longer are you restricted to mouse doodles in *DPaint* or pictures pulled from CD-ROM and the net. Now you can use the full potential of your Amiga's graphics, importing still frames and animations from just about any video source, including domestic VCRs and camcorders.

For the lucky high-powered Amiga users among us, there are broadcast quality digital video recorders boasting 24-bit graphics with 16-bit stereo sound. A1200 owners are spoilt for choice with plenty of low cost units that exploit the AGA chipset, and A500 owners also have a wide choice with prices starting from under £30.

How they work

Video digitisers, also known as video grabbers, work on the same basic principal as sound samplers. An analogue signal (the video picture) is passed into the digitiser hardware, where it is converted into digital data by an analogue to digital (A-D) converter. This digital data is then passed on to the computer, which can then display it as a digitised reproduction of the original video picture, manipulate it and save it out to disk.

However, there are a number of different methods of transmitting analogue video signals. Composite video (aka VHS) and Y/C (aka S-VHS) are the two formats commonly supported by amateur and semi-professional video equipment such as VCRs and camcorders, so consequently these are also supported by most Amiga video digitisers. Some support one or the other while some can take both.

Composite video is good enough for many applications, although it combines the colour and brightness information into one signal, and so can lead to some distortion.

Y/C is superior as it treats the colour and brightness information separately, combining them only at the destination (the screen).

In order to use a Y/C grabber you must of course have a Y/C video source, so check the output connections on your video source before deciding on any particular grabber. Here's a look at some that are on offer.

Tony Horgan

VIDI Amiga 12/ 24RT/ 24RT Pro

Supplier: Quantum

Tel: 015606 461 917

Price: £69/ £149/ £249

The VIDI Amiga digitisers have long been a favourite, and are now being sold through Quantum rather than Rombo, their original developers. VIDI is currently available in three guises: 12, 24RT and 24RT Pro. All three offer both composite and Y/C inputs, and support the AGA chipset. VIDI 12 digitises in 12-bit colour (or mono in realtime) and is compatible with all Amigas, while the 24RT and 24RT Pro versions grab in 24-bit colour in realtime, and require Workbench 2 or above.

Like ProGrab 24RT Plus, all three of the VIDI series come with fairly accomplished image processing tools built into the digitising software - not that they're anything to rival dedicated image processing systems such as *Image FX* and *AdPro*, but they're handy for minor adjustments and colour-changing effects.

ProGrab 24RT Plus

Supplier: Gordon Hardwood

Tel: 01773 836 781

Price: £129.99 (+ £29 for optional PCMCIA interface)

ProGrab 24RT Plus is surely the people's champion when it comes to affordable video digitisers. The original ProGrab 24RT was released last year and was well received by the Amiga world. The only criticism levelled at the original version was the limitation of the composite video input. This has been rectified in the new Plus version which adds among other things a Y/C input for finer picture quality.

It can be used with any Amiga running Workbench 2 or above with 1.5Mb of RAM. 24-bit colour grabs are taken in realtime, and 'downloaded' from the grabber unit to the Amiga for rendering in your chosen screenmode. Alternatively, the entire 24-bit buffer can be saved to disk even on non-AGA Amigas, for use on other platforms. Animations can also be digitised, although frame rates are fairly low even on the fastest of Amigas. Audio can also be sampled simultaneously.

An optional PCMCIA interface is available for A600 and A1200 users, which raises the maximum frame rate for animations, and generally speeds up the grabbing process.



VLab Y/C

Supplier: White Knight Technology

Tel: 01920 822 321

Price: £349

VLab Y/C is a bit special, as it can digitise complete sequences of full-screen video in full 24-bit colour from a conventional Y/C video recorder. While other realtime digitisers can grab single frames, the Amiga doesn't have enough speed or bandwidth as standard to be able to grab 50 frames of video every second. A typical uncompressed frame of 24-bit digitised video could be as large as 1.5Mb, so to pass 50 of these through the system each second would call for storage rates of 75Mb per second. Fast hard drives can store around 2Mb per second, so VLab Y/C employs a clever trick to get around the problem.

It works by memorising start and end (key) frames from a sequence of video tape. You define these frames, and replay the section of video, starting the tape just before the first required frame. VLab starts digitising when it sees the start key frame, and saves its grabs to RAM or your selected storage device. Not all frames can be grabbed in one pass (as explained above), so VLab asks you to rewind the tape so that it can take the frames it missed the first time around. Depending on the speed of your Amiga and your hard drive, it will need to take several more passes until the whole sequence has been captured. An infrared video transport controller is available as an add on to save you winding the video back yourself.

VLab Y/C is available a Zorro card for big box Amigas, and as a plug in for all other Amigas with Kickstart 2 or higher and 3Mb of RAM. This is recommended for anyone who wants professional results, but doesn't quite have the budget for the likes of a VLab Motion or Personal Animation Recorder.

VLab Motion

Supplier: White Knight Technology

Tel: 01920 822 321

Price: £999

For serious digital video editing, VLab Motion is well worth looking into. Although it could be thought of as the big brother of VLab Y/C, this Zorro card works rather differently, digitising and replaying 25 frames of 24 bit video every second. These frames can then be cut and pasted and played back in redefined order. Soundtracks can also be recorded simultaneously with a Toccata sound card, linked to the video, and edited accordingly.

It pulls off this amazing feat using JPEG compression and decompression hardware. JPEG is a popular format for 24-bit images as it can drastically reduce file sizes compared to other formats, but there's a trade off between file size and image quality (ie. smaller files=lower quality). With VLab Motion, you can set the JPEG compression quality according to the speed of your storage device and CPU power. A very fast hard drive is essential if you want to get the best results. If you are going to pay nearly a grand for one of these boards, it would be foolish to undermine its power with a slow hard drive.

With CPUs and storage devices getting cheaper and faster by the day, VLab Motion should have a healthy future.

Personal Animation Recorder

Supplier: White Knight Technology

Tel: 01920 822 321

Price: £1849 (PAR card) £999 (AD3000 card)

Personal Animation Recorder (PAR), like VLab Motion, is a dedicated realtime digital video recording and playback system based around two Zorro cards. First there's the PAR card, which handles the compression and decompression of the video frames, storing them and playing them back from your hard drive. However, if you want to digitise live video sequences, you'll need to add the AD3000 card (a combined analogue to digital converter and time base corrector) which comes with S-VHS and composite video inputs.

A variation of JPEG compression/decompression is used to attain the 25Hz frame rate. Amiga-generated animation sequences can still be recorded and replayed at this rate. Sound sampling requires the addition of a Sunrize AD516 card.

VideoMaster

Supplier: HiSoft

Tel: 01525 718 181

Price: £69.95

VideoMaster is a very clever bit of kit, and you don't need a powerful A4000 to use it. VideoMaster records video and sound at up to 25 frames per second on standard Amigas (A500 upwards). The inevitable compromise comes in the form of reduced screen sizes and numbers of colours. Audio is digitised at a maximum rate of 16KHz, which is fine for most sounds. For anyone who wants to grab sequences for PD demos, game intros or stylised video projects, VideoMaster is an excellent choice.

Both AGA and non AGA versions are available. Don't expect to be able to produce professional quality videos with VideoMaster, but for specialist use it's excellent value for money. It also doubles as a stand-alone sound sampler, for use with music programs such as *OctaMED*.

Video Digitiser Features Comparison

PRODUCT	SUPPLIER	INTERFACE	INPUT	OUTPUT	REALTIME	ANIMATION	HD RECORDING	24 BIT	AUDIO	PRICE
ProGrab 24RT	Gordon Harwoods	Parallel or PCMCIA	Composite + SVHS	n/a	Yes	Yes	Yes	Yes	Yes (PCMCIA version)	£129.95
Vidi 12/24/24 Pro	Quantum	Parallel	Composite	n/a	Yes	Yes	No	Yes (24 versions)	No	£69/149/249
VLab Y/C	White Knight	Zorro card	Composite + SVHS	Composite + SVHS	Yes	Yes	Yes	Yes	No	£349
VLab Motion	White Knight	Zorro card	Composite + SVHS	Composite + SVHS	Yes	Yes	Yes	Yes	Yes (with Toccata)	£999
VideoMaster	HiSoft	Parallel	Composite	n/a	Yes	Yes	No	No	Yes	£69.95
Video Digitiser 2	Datel	ASDD expansion port	Composite	n/a	Yes	No	No	No	No	£29.99
PAR	DPS	Zorro card	Composite + SVHS	Composite + SVHS	Yes	Yes	Yes	Yes	Yes (with AD512)	£29.99

OctaMED 5.04

PART 1 We kick off our OctaMED 5.04 tutorial series this month with a look at special effects.

Player Commands

05/06 (SLIDE/VIBRATO AND FADE): Combines commands 03/04 and 0Dxx. Use after a slide/vibrato to keep the effect going while fading. Use level 01 or 02.

07 (TREMOLLO): A 'volume vibrato'. Use a high depth.

08 (PLAYING SEQUENCE JUMP): Jumps to a new line (the command level + 1) in the playing sequence.

0D (VOLUME SLIDE): Very smooth. Use level 01 or 02.

0F (MULTI PURPOSE): Depends on the command level. 01 to F0 changes tempo, 00 skips to next block, F1 to F5 repeat the note in several ways, F8/F9 switch the audio filter on/off, FD changes to the new note without replaying the instrument (this one's good).

16 (REPEAT LINES): Enter a 1600 somewhere, then e.g. 1603 somewhere else to repeat the portion marked by the two commands three times.

19 (SAMPLE START OFFSET): Plays a sample from somewhere in the middle. Use together with Generic Slide for a great effect.

1E (REPLAY LINE): Replays the current line's player commands (not notes) the number of times given by the command level.

Press help for more.

We were tinkering with OctaMED last month, and we tried our hand at a simple drum beat. This month we'll extend the complexity of our music by examining 'player commands'. Player commands add bells, whistles and tinisely bits to your music; they are codes for functions and special effects that change the way in which a sample is played. You enter them in the mysterious four digits to the right of the notes. These digits are called the 'command digits'.

Take a typical note: C-2 10C32. The command digits are 0C32, and they represent player command 'type' 0C at 'level' 32. Type 0C controls volume, so the note will be played at volume level 32. So as you see, player commands are split into type and level bytes.

You might have guessed that the numbering system isn't standard decimal; in fact, it's hexadecimal. Now and again you'll need to convert decimal numbers to hex when using player commands, (but not in this month's tutorial). Check out the box-out on further player commands for a quick guide anyway.

But enough talk, let's do something! Have OctaMED 5.04 freshly loaded and at the ready.

Speaking volumes

Let's continue our look at the much-used volume command (type 0C). We'll need to load an instrument to test it out and you'll find one called AcGuitar on this month's cover disk in the Samples directory. Load it as instrument number 01 by following the steps in the Loading Instruments panel.

Loaded fine? Yes, now play it

using the keyboard. Now, on line 000 track 0 (you should be there anyway), enter note G-2 with this instrument (the T key). We did it last month but to refresh your memory see The Quick Guide To Editing panel. Next move down to line 016 and enter another G-2, but this time put an 0C32 player command beside it.

Done? Good! Listening carefully, click Play Block (top left). Notice the softer volume on line 016? The maximum (and usual) volume level is 64, so our level of 32 plays at half volume. Zero level (0C00) is silent. Simple really.

Turning it down a bit

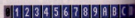
Now here's a cunning feature for you! Stop playing (Stop button) and put an 0C64 command beside the G-2 on line 000. This won't have any effect but we'll need it. Now move to anywhere between the two G-2s (line 005, say) and select Edit menu -> Volume Slide.

000	G-2	10C64
001	---	00C60
002	---	00C62
003	---	00C58
004	---	00C56
005	---	00C54
006	---	00C52
007	---	00C50
008	---	00C48
009	---	00C46
010	---	00C44
011	---	00C42
012	---	00C40
013	---	00C38
014	---	00C36
015	---	00C34
016	G-2	10C32

Wow! A whole host of 0Cs appear, turning the volume down from 64 on line 000 to 32 on line 016. Play the block to hear this. To slide back to level 64, put a 0C64 on the last line (063), move to anywhere between lines 016 and 063 and select Volume Slide again.

Another useful volume feature is 'note echo'. Firstly, find the row of blue buttons above

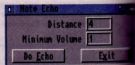
the editor, and click on the one marked '0' to turn it grey as in



the picture. This switches track 0 off; try clicking Play Block and you'll notice that the notes on track 0 are completely ignored. OK, next move to track 1 line 000 and enter A-2 10C64 (hopefully this shouldn't be too much trouble by now, A-2 is the Y key remember). Refer to the September issue for the keyboard map.

By the way, use the space bar to stop that guitar sample humming on whenever you press a key. Now select Edit menu -> Range Current Track, and track 1 should turn white. A 'range' marks a set of notes to be affected by some function, just like marking text in a wordprocessor. We'll cover this later.

Open the Note Echo window (Edit menu, right at the bottom), and click Do Echo. Close the window using its close gadget or the Exit button and play the block. Now OctaMED's added several new notes, together with 0C commands which halve the volume of each successive note. Cool isn't it? You may have noticed two numeric boxes in the Note Echo window: try experimenting with these values. You'll need to clear the track (Track



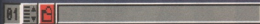
menu -> Cut), enter another A-2 10C64 and range the track between experimenting. When you have finished make sure to close the Note Echo window.

Cut short in their prime

Just one more feature for now. Command OFF cuts the note (any) currently playing on the track on which it's entered. In the

Loading Instruments

- Select the required instrument number (left/right arrow with shift key).
- Click on the top row's small GetFile gadget (highlighted in red in the picture).



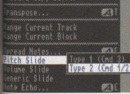
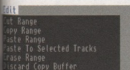
- Double-click on the required instrument name in the file requester. Use the volumes button to change disks and click on a drawer name if necessary.
- To load several instruments at once, click on each name in turn while holding the shift key, then click OK (bottom left).

row of blue buttons, switch track 1 off and track 0 back on (just click it again). Now enter an OFFF command on any line of track 0 - how about 019? and play the block. So it's a sort of "Hey, who pulled the plug out?" effect.

Enough of this block, but before we cast it aside let's name it. Select Block menu -> Set Properties and type in some descriptive text in the box. This text will appear in the information window whenever the block is selected. Close the window and why not save the song (Project menu -> Save, pick a filename and click Save).

Invading the pitch

OctaMED has three pitch-sliding player commands: 01 (slide up), 02 (slide down) and 03 (bit of both). They're particularly fiddly to enter on inferior Tracker programs, but not on OctaMED!

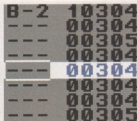


Add a new block first. Select Block menu -> New -> Append, then press down arrow with Shift. Now on track 0, put a B-1 (same old instrument 01) on line 000, move to line 016 (key F7 is the easy way) and add a B-2. Move up to line 008, then select Edit menu -> Pitch Slide -> Type

2 (Cmd 1/2). Play the block. Holy portamento! In a twinkling, OctaMED's added all the necessary 01 and 02 commands to create a smooth slide. The routine for making a pitch slide is: enter starting note; enter finishing note; move cursor to where the slide is to begin (somewhere between the two notes obviously); choose Pitch Slide from the Edit menu.

Going solo is simple

But what about command 03? You may have noticed that there's another type in the Pitch Slide sub-menu; let's try it out. Make sure the cursor's in track 0, then select Track menu -> Copy A



copy of track 0 is now in OctaMED's 'copy buffer'. Move across to track 1 and select Track menu -> Paste to copy the copy buffer to track 1. Dead easy.

If we're going to try out command 03, we'll have to remove all the 01 and 02 commands from track 1. So move to line 000 and hold down the Alt and Del keys together until all the commands are back to zero. OK? Next, move to line 008 and select Edit menu -> Pitch Slide -> Type 1 (Cmd 3). Play the block.

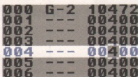
Can you hear the difference? Try switching tracks 0 and 1 off alternately (actually, here's the tip of the month: 'solo' a track by

clicking on its blue/grey number while holding shift. Turn all tracks back on using the Set button on the right).

With commands 01 and 02, the ending note is actually played; with command 03, the ending note is not played. I prefer 03 myself, it's kind of smoother and, well, that's me.

You say vibrato

Vibrato' is that wobbling effect that virtuoso string players are



famed for, and OctaMED supports it in the shape of command type 04. So add a new block (see start of last section) and enter G-

2 10472 at the start of track 0. To keep the vibrato going throughout the track, we need a string of 0400 commands, and to add them quickly, move to the third digit on line 001 (where the 4 would be entered), and hold down the 4 key for a bit. Play the block.

The first digit (7 here) is the vibrato speed, the second the depth, so have a good experiment. Remember it's in hexadecimal so you can use digits A to F too, although depth F really is very silly.

A final command: add an OFFF anywhere and play the block. Hey, it stops! although the guitar sound might not stop - you'd have to add OFFF commands before the OFFF for that. Actually, I didn't say but the way to really add an OFFF is to click STOP with Shift held down.

Well, I hope that I've whetted your appetite for now. Ta-ra till next month! ■

Ed Wiles

Quick Guide to Editing

- Switch on the Edit tick box (top left, just above the Tracker editor).
- Select the required instrument (left/right arrow with shift key). Also see the Loading Instruments panel.
- Move to the required line (up/down), track (left/right with Alt), and cursor position (left/right). To enter notes, make sure the cursor is a long horizontal box.
- Enter note or command digit. For notes, see last month's keyboard diagram.
- Press the Del key to erase a note or digit.
- Function keys F6 to F10 move to certain important lines (first line, quarter-way through, half-way, three-quarters-way, last).
- Click the Space tick box (beside Edit) to automatically skips lines. Set the number of lines to skip in the Keyboard Options window (Settings menu).
- Also in Keyboard Options, selecting Auto Advance Cursor Right (top right) eases the entering of player commands.

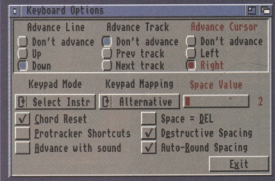


Image FX 1.5

PART

2

Make your graphics stand out from the rest with another batch of stunning Image FX tricks.

By now you've probably experimented with many of the 'off the shelf' effects available from the *Image FX* button menus. Some of them can transform images into wonderful works of art, while others seem to just mess them up, others are fun but don't seem to be very useful. The Spiral process from the Hooks menu fits into the latter category, but can be put to good use in a number of ways.

Despite its name, the Spiral effect doesn't have to twirl your picture round – it can be used to implode or explode the image. In

the examples here, a black and white logo was used as the source image. This was run through the Spiral effect using the implode option set to its maximum level of 40 pixels. The original logo was then dropped over the blurred version to redefine the outline.

Be prepared for long rendering times when using the Spiral effect. If you want to test out a process but don't want to wait ages to find it's not what you wanted, then first prepare a scaled down test image and work on that instead. Rendering times will be halved if you half the size of the image.



▲ Here's a typical black and white line-art logo. It's OK, but could do with a bit of spicing up.



▲ Once it's been put through a specially modified 'Spiral' effect it appears to surge forward off the page.

Take a trip through time

This nifty effect was created with the Remove Feature option from the Effect menu. The original image was around 300 x 500 pixels in size. This was loaded in and then the Swap buffer was set to 700 x 500 pixels. The picture of the girl was then cut out using the automatic background detection mode (double click on the scissors) and pasted down on the far left of the Swap buffer. Next, Free was selected from the top left control button (the one that normally reads Full). All of the screen to the right of the centre of the girl's face was marked out (as the area to be affected), and then the Remove Feature option was selected from the Effect menu. Finally, switching back to Full mode, the picture was then run through solarize and negative processes.



▲ The Remove Feature option can be used to eliminate spots and unwanted glitches, but it can also be exploited to create effects such as this long film.

Painting by numbers

In most cases, applying effects to pictures using *Image FX* is just a matter of picking one from a menu and hitting the Go button. However, if you're prepared to work just a little bit harder there are plenty of other not so obvious options available. The picture shown here is an example of what I mean. The aim in this case was to create a stylised portrait that would look hand painted from a digitised original.

The key feature that made this possible was the Trace Through draw mode. This can be selected from any of the standard drawing tools (line, freehand, fill etc) by double clicking their icon and changing the Mode setting. For this to work you need a main image and a secondary image (in the Swap buffer). When Trace Through mode is active, the shapes you draw on the screen only appear

on the hidden picture – not the picture you can see as you draw. To check on the progress of the tracing, press the J key to jump to the Swap buffer...

In this case a 'paint by numbers' style was the required result. First the hair, face and shoulders were traced using the filled freehand tool. Colours matching those of the original image were selected by clicking on the Palette button and then on the Pick button. At this stage the pointer changes and you're expected to click on an area of the picture that matches the colour you want to paint with. Features were then gradually added working from the outside in, leaving the lighter colours until last.

Different results can be attained by tracing through using alternative drawing methods.

Tony Horgan



▲ Here's CII Amiga's new heart-throb designer Anthony Collins in his natural state. This image was used as the template for the following tracings.



▲ Using the Trace Through draw mode, the outline of the design type one's hair, face and shoulders were traced through onto the secondary page.



▲ Working in towards the features, successively lighter areas were traced through from the original image. The result looks a bit like a contour map.



▲ Shadows cast by the eyes, nose and mouth were added next, and a further level of colour was given to the previously drawn cheeks, nose, chin and forehead.



▲ The idea was to keep the final image sparse and free of fine details, so just subtle approximations of the eyes and mouth were used.



▲ Nearly forgot his neck! A few fleshy shades are filled in to join the head to the shoulders, and the image is complete. Just call me Tony Hart...

ProDraw

PART

5

The final part of this tutorial comes over all artistic as we try out some of ProDraw's more creative features to come up with a pretty picture.

1 In this final look at ProDraw, I want to show you a few of the more creative tools you should be getting to know. One of the things I've learnt over the last few years using ProDraw is that if you don't want to be behind the eight ball, you need to experiment and keep on experimenting so you can exploit all of ProDraw's tools.

To get the ball rolling on this month's tutorial, I want you to start by drawing a circle. Hold down the Alt key while you use the Ellipse tool to drag out your circle. When you have finished, give the circle a solid red fill with no line weight. Right Amiga-F is a short-cut to the fill colour.

Press the Tab key to produce a duplicate of the circle. Before we cut the circle in half, it needs to be shrunk by 90% using the Sizing tool. With the circle active, double click on the Size tool and enter 90% into both X and Y text gadgets. Choose the Cutting tool from the toolbox and then cut the circle in half. You do this by pressing the left mouse button once either side of the top and bottom control points on the circle.

Only the control points on the right-hand side of the circle should be active. If this is so, the right-hand side can be deleted by pressing Shift-Delete. If the right-hand is not active, click on it, and it should become active.

Take the text tool and type a number eight on the page, scaled so that it fills the circle. Now place the half circle over the top of the main circle, positioned it so its sits on the left of the vertical axis. Select both circles and choose Make Compound Object. Follow this by placing the eight in the centre of the newly formed compound object, then select all the objects



5 Some background objects are placed behind the elements to add the finishing touches to our image.

and choose Make Compound Object again. The finishing touch is applied by turning the compound object a few degrees using the Rotate tool. Double click on it and then enter a figure like 15 degrees.

Mirror image

Now create the text 'Countdown' and place it over the eight ball. Double click on the Distort tool and make sure that General is selected. You should now have six handles to distort the text just like a piece of Plasticine. Once done, with the text still selected, press the Tab key to duplicate the distorted text. Give it a lighter fill colour and then select the Mirror tool. Click once on the left of the text, keep the mouse button held down and in a horizontal straight line across the page, click again on the right of the text. The duplicate should now be a

mirror image of the main text.

Using the Distort tool again, mould the text so that it fits the text above it. The image is now finished. You can jazz it up further by placing a background behind all the elements and then add some 'embossed' shapes to give the background some depth. This is achieved by making the objects a slightly lighter colour than the background.

More help

That wraps up the tutorials for the ProDraw cover disk. There is so much you can do with this great program. The examples that we've worked through over the last few months are only the tip of the iceberg. Many of ProDraw's tools have a number of options which aren't readily apparent and the manual is very useful in explaining these points.



1 These are the elements you need for this tutorial. The half circle is produced by first reducing the circle by 90% and then using the Cutting tool to cut the circle in half.



2 Once all three objects are combined the next step is to make them into a compound object. The half circle is added first and then the number eight.



3 The Distort tool is used to create an envelope around the text. You can then fine tune the handles on the envelope and mould the text into the desired shape. Press the space bar to see the result.



4 A shadow is added by duplicating the distorted text before using the Mirror tool to flip the duplicate object. This shadow can now be moulded using the Distort tool so it matches the text above it.

So, to get a copy of the manual call me at LH Publishing (01908 370230). There is also loads of material that we've written on this useful tool. This includes how to use it with its sister program Professional Page which also have copies of at the moment and the manuals of course. Also remember that we offer technical support (sanctioned by Gold Disk) for ProDraw through our Amiga publishing magazine 'Em'.

Larry Hickmott

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HARDWARE FOR THE HOME

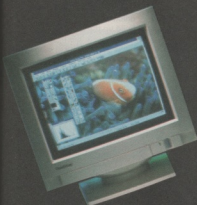
Reviews of the best kit to buy to get the most out of your favourite hobby — some of it sets new standards.

INTERNET

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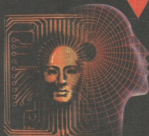


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Personal Paint

PART 1

Learn how to create your own 3D stereograms in the first of our tutorials.



▲ Here's an example showing how a SIPS image can be incorporated into a standard drawing. I used a multi-blue brush, about 1 x 1 cm big, and created a stereo image of a dolphin, drawn on the spare screen with just one shade of grey. Adding the palm trees, sea spray and sky was simple and is a novel way to show off your work.

If, like me, you're fascinated by the hidden world of 3D, you should be bowing at the feet of the programmer who included stereoscopic filters in the latest version of *Personal Paint*. It's an astounding feature for a budget art

program, though one which is difficult to control – until now that is.

Personal Paint 6.1 has many special-effects filters, but the most 'special' have to be the ones which turn a flat grey-scale image into one with real depth when viewed properly. There are two

types of filter used to achieve this effect: SIRS, which automatically create an image composed of random dots, and SIPS, which do the same but use a picture to form the stereo image. SIRS are the easiest filters to use because the computer does it all. With SIPS you have to use some judgment over what kind of brush to use, using trial and error to get the desired effect.

Let's begin

Whichever method you chose, you need a starting image for the filter to work on. This is drawn on the spare screen, which ideally should be in the same resolution as your main screen. To do this, start the program in the screen mode you use (I have used high res 256 colours for this tutorial), then copy the blank screen to the spare with a shift/J key press.

While the software can work on any colours when composing a 3D picture, I prefer to work with the range of greys which come with the default palette. There are 16, which is enough to begin with.

The golden rule is that the darker the grey, the further back 'into' the image it will be. So white will be 'in front' of every other grey on screen in terms of depth perception.

The colour you choose for your background is important. If you have standard black, then everything you paint will be 'in front' of this. If you choose mid grey, then by painting with darker greys, you will appear to cut into the background and still be able to have lighter

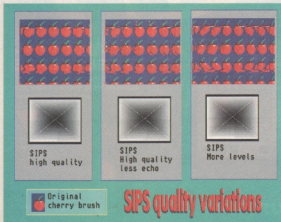


▲ And here's the touch of bluntness I made using the clever brush and high quality SIPS setting. Hidden in the image is a large four-foot clown, and a couple of smaller ones further back.

greys for use on objects nearer the front.

If this is your first time using *Personal Paint* then stick to simple grey shapes. You can use *PPaint*'s gradient fill for special effects. The contour fill is good also but it can come up with unpredictable results and needs fine-tuning for it to be effective. So it's best to use the simple method and get great results than end up frustrated by using too sophisticated a method to begin with.

Designing your grey image needs a little forward planning: which objects are background, mid-ground and which hit the onlooker in the eye. You have to build up the picture from the back layer to the front, so it helps to rough it out on paper first. Use the filled tools to draw with – single pixel brushes are too thin to be caught by the 3D interpretation. Text, too, can be a



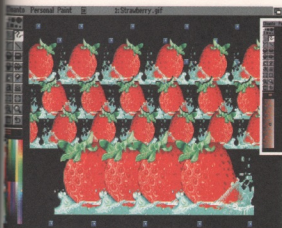
▲ This sample shows the effects on quality of your image as choices made from the Filter menu. The more depth, the more degraded your brush image will be. Ultimately the choice is yours: try out several ways because you have nothing to lose; your original grey image is never touched during the process, only the main drawing screen alters.



▲ This is one of my favourite brushes; it's quite small, but uses bright, smooth colours to give a pleasant look. Inset is the greyscale image you're looking for, plus the original brush.

Can't spot anything at all?

How do you 'see' the hidden image? Generally you have to try to focus twice as far away as the image you're looking at - which means crossing your eyes slightly. To achieve this on a computer monitor is easy - just look at your reflection, not the image, then move your eyes onto the picture without re-focusing. How does it work? Five second explanation - by tricking the brain into making assumptions about objects it discerns within the hidden image. It is the distance between dots belonging to an object which determine the perceived depth. Four day explanation: read *Bela Julesz' 1972 book 'Principles of Cyclopean Perception'* then write in and tell me what it's about!



A listing the strawberry image which comes with PPaint I created a Miquelangelo stereogram. Just by repeating an image at different spacing levels to show depth. The strawberry is the same image throughout, but flipped and slightly re-sized for different levels.



A You can use hand-drawn objects for your brushes when creating SIPS; here I've drawn a clover leaf, and printed it down many times to build up a block of leaves. To add conformances I flipped the brush horizontally and vertically from time to time. Then I cut out a rectangular area to act as the 3D brush.

problem unless you have it quite large - 72point, say.

More depth

Once you have drawn your drab-looking grey image on the spare

screen, switch back to the main screen, and right click the filter toolbox icon to bring up the requester. We're starting with SIRS, so scroll down to that section and decide on the option you want most.

The options are self-explanatory really, but please note that 'More Levels' gives a greater perception of depth to any image, and Help signifies the printing of two dots at the right distance on the top of the generated image to help people focus better. Once you've made your choice, click on the Filter tool with the left mouse button and drag out a rectangle to enclose the area your greyscale image covers, and watch as the program works its magic.

If there are any problems with

A Another SIPS image, this time using a miniature version of the Cheetah drawing which comes with PPaint. This high quality render hides a simple globe with the continents raised.

the depth, you can go back to the spare screen and alter the colours of the offending objects before repeating the process.

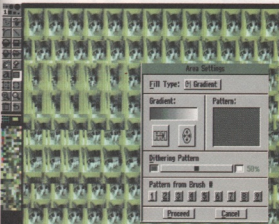
Remember, there's no problem because your grey image will always be sitting there on the spare page whilst the 3D picture is generated on the main screen.

New technology

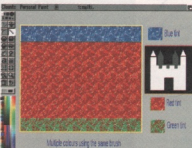
PPaint also takes advantage of the latest technology to allow users to create images based on brushes. This may not sound like much, but it is a major breakthrough, allowing recognisable primary images to be used as the foundation for the hidden 3D picture.

Your brush will be the size of a postage stamp but will have plenty of information on it. You can either load in a brush and size it down, or make your own using swirls of pattern appropriate to the image. Check out my examples to get a clearer idea of what constitutes a good working brush.

TIP - Do not include any background colour around the edges when you clip out your brush, as this will show as regular lines on the generated image. In fact, use the magnifying tool to clearly see where to clip the brush.



A By clicking up the fill requester shows here, you can define the start and end of a colour gradient by clicking on the start colour with the left mouse button and the end colour with the right button. Horizontal and vertical fills will have objects starting at the back of the image and coming forward, while contour fills give some resemblance of hills.



A Multi-coloured SIPS. Just define one brush and apply it to your grey image. Collect the same brush using the Text filter, and apply the SIPS filter to any part of the image. The brush has the same texture so you won't see the join.

To create the effect, draw your greyscale image as before on the spare area, and choose one of the SIPS options from the Filters requester. The options here are more important than for the SIRS as they not only control the feeling of depth of the new picture, but also how degraded your original brush image will become. It's a trade off - if you want greater, smoother depth then this will be at the expense of the quality of the original brush. Experimentation and personal choice are the keywords here.

It's also good to use a brush appropriate to the hidden image - it's a sort of in-joke which also gives a visual clue to what to expect: multiple images of a bunch of grapes hiding a 3D bottle of wine, for example.

Finally, look at the examples this month and see how easy and effective it is to create stunning 3D images on your Amiga. And think of all the money you're saving by not buying over-priced books and posters! That's it for now next month I'll be taking a look at some more special filters to help you get the most out of your Amiga and your imagination. **Peter Lee**



Starting to customise Amosaic with the help of MUI profs, some impressive results can be had on a 256 colour screen but it's slow.

Amosaic/Amosaic14beta5.AS225.ha

If you want to be clever, you could open another shell and repeat the FTP process at the same time as the first one is downloading any of the above files. That's right, there's nothing to stop you from FTPing to as many sites as you have memory and bandwidth available to handle the downloads. In fact, if your FTP sites are slow, being logged on to many and downloading simultaneously will actually improve the total throughput and get your files in less time.

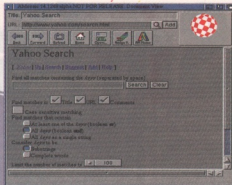
Expert readers may be surprised that we have opted for the AS225 version of Amosaic. There

That trick is the socket library and we now need to extract it from the grapevine archive. CD to where your grapevine archive resides. Enter

cd x:\grapevine.1ha
grapevine/socket_1lib12.1ha.

That should extract the socket library archive from the grapevine archive which is all we need for now but keep the Grapevine archive safe and sound. We'll need it later.

Now extract the contents of the socket library archive and copy the library 'socket.library' into your libs: directory. This library allows us to pretend we are running the AS225 Internet software and then obviously run the AS225 version of Amosaic. Don't ask, just trust me it works. Next up is the GIF datatype. Extract the full archive to some place and read the instructions in the archive on where the files go if you are unfamiliar with the Amiga's datatype locations. Great, we are getting there. Amosaic 1.2 can now be installed. There's documents in the archive but essentially, it just



The 1.4 Beta version of Amosaic now forms capability, here you can enter details into the web site. Made prettier by some more MUI customisation.

needs to be extracted into a directory on your hard drive where it may be run from. Now all we need to do is extract the

Amosaic14beta5.AS225.ha archive which only contains the 1.4 version of Amosaic itself. This needs to be dropped into the same drawer as you installed Amosaic 1.2. You can delete the older archive as this is the Amosaic you will be running.

Firing up

Barring any faults with the procedure up to here, we should be ready to rock and roll. Link up again (isn't our phone bill taking a beating today?) and then click on the Amosaic icon.

If all went well, you should see Amosaic attempt to negotiate a connection to the Amosaic 'home page'. Yes that's right, most of the Amosaic documentation, newer versions and information is on the World Wide Web itself and Amosaic by default will look it up when it's first run.

You'll notice that Amosaic displays the text first and draws the pictures as little diagrammatic boxes at first. Then it will negotiate the transfer of the GIF pictures, pump through the GIF datatype and finally display where the boxes were. Because of this, the higher the colour depth of your screen, the better Amosaic

Jargon busters

GUI: Graphical User Interface. The display you look at and click on to use. Amosaic's is built with MUI.

FTP: File Transfer Protocol. The method used to fetch files over the Internet.

NCFTP: The Amiga FTP client installed with AmiTCP. This program is used to 'download' files from FTP 'sites' over the Internet.

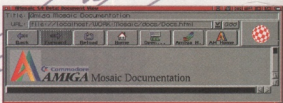
will be able to display GIFs with many colours. The down side is that this will slow your machine down since MUI isn't the fastest GUI at the best of times let alone under a high colour depth Workbench. Those readers lucky enough to own a graphics board will hardly notice. Matters can be improved by getting Amosaic to open on its own screen.

You can resize Amosaic to whatever size you require and run as many copies as memory permits. All may be logged on to different WWW sites.

Remember it's easy to jump to a site with a very bad Internet connection and you may discover that you've got to download a 150k picture and you really don't fancy the prospect of 10 bytes per second. Click on the snazzy bouncing ball to cancel any transfer underway. Moving off to another site can be accomplished either by retracing your steps with the left arrow 'back' gadget or opening a new site via the 'Open' button. Possibly selecting a site pre-entered into the phone-book. Clicking 'Add' on the one book bar will instantly include the current site and position into the phone-book for instant access in the future.

There you have. Off you go now. Try the Amiga home-page. There's a big button for it on the Amosaic GUI. ■

Met Bettinson



Documentation for Amosaic is provided in the same text and graphics form as when using over the Internet. To activate this, there's a menu option to load off local disk in the project menu.



Net God Speaks

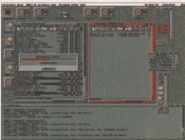
I'll go for the throat this month with a long-standing gripe of mine; why is there no commercial Internet software, besides AmiTCP 4.2, on the Amiga? Before you flame me I should tell you that I value shareware most highly. Only a cybernoid would deny that it's because of shareware we have any hope of surfing the 'net at all. Still, we haven't got the killer applications. No out-of-the-box easy-to-install and fully functional web browser for instance. AMosaic is a valiant attempt but it could be better. If there was a commercial WWW browser and it was wicked, raise your hand if you'd fork out 30 sovs for it? Thought so. Now repeat for mail and news software.

There's some reasonable shareware around in those areas but I bet that there's many a net head that doesn't enjoy delving into the depths of uulib.config. Lord knows we've spend many an hour trying to figure out what some PD, compiled from Unix source, is actually looking for in the bizarre TCP cum UUCP mongrel breed that lies at the heart the netted Amiga.

Now Amiga Technologies UK boss, Jonathan Anderson has invited the developer community to come up with the ultimate easy-to-use Internet solution to be included with the Amiga. So get busy. New would-be Amiga net heads need you.

Surf's up

Net God calls for commercial net software. Plus what's new on the scene.



▲ The FTP add-on for Opus 5 will be much welcomed. The demo of Opus 5.2 is available from Amnet.com/TCP/OpusFTP.htm

Net news

FTP for Directory Opus 5

GUI FTP clients have come and gone in the past but none has caused more interest than the Directory Opus 5 FTP add-on. It miraculously turns listers into FTP site representations, while the files which appear can be copied to and from this lister and the FTP add-on will perform the business end via AmiTCP and its own FTP client. It's even possible to perform operations such as directly reading the contents of a text file or displaying a picture.

Due to be released in a public demo version, the FTP add-on will be included with the Opus 5.2 upgrade. The demo is limited to only a few anonymous sites in its phonebook, no abort function and only one session at a time.

However it will give a taster to what Opus 5.2 offers the 'net user. The demo can be found on the Amnet.com/TCP/OpusFTP.htm. The prospect of having multiple FTP listers open simultaneously will prove an attractive incentive for Directory Opus 5 users connected to the Internet to upgrade. For more information, why not subscribe to the Opus 5 mailing list by sending a mail to NetJordomo@bircb.

.apana.org.au with 'subscribe dopus5' in the body. Posts to the list need to go to dopus5@bircb.

.apana.org.au.

darkside.demon.co.uk

Xenolink BBS Software changes hands

The popular and powerful BBS software package, Xenolink Pro, has changed hands in a surprise move by a group of Xenolink sysops buying out the rights to the software from the author Jonathan Forbes.

The group of 12 sysops took two months to finalise the deal under which they took control of the distribution and future development of the package. That's good news for Xenolink sysops that saw development falter as Jonathan Forbes lost interest in the project in favour of his LZK archiver.

Most of the team, calling themselves 'Xenolink Inc', are programmers themselves with plans to add serious new features to the package. The UK support site is the Darkside BBS, managed by Robert Dale. You can reach Darkside on 0181-771-9100. Fidonet: 2:254/524. E-Mail: robdale@

Fidonet withers in summer

It's traditional that the traffic across Fidonet falls during the summer months. The unusually impressive summer of this year has had many Amiga Fidonetters outdoors rather than participating in the Amiga specific echos in the comfort of their homes. Also the international AMIGA echo has lost its stateside connection reducing the phenomenal hundred messages a day to just a couple which has left die hard Fidonet lurkers no choice but to hang out in the main echos such as AMIGA_UK and WORKBENCH with the smaller echos falling into disuse.

Demon in Flames

Demon newsgroups are alive with flames and accusations concerning the constant presence of a few people who have, to their credit, supplied help and PD utilities to the masses. Some say these people play god and that their word is law. To make up your own mind, add 'demon.ip.support.amiga' to your Newsgroups file and check it out for yourself. ■

CU Amiga Mailing List

Now that CU Amiga Magazine is netted up directly, we've implemented two mailing lists which you may subscribe to. The first is 'cu-announce', a one way only list in which we'll post news, special offers and noteworthy events regarding the magazine. This will be a low traffic list. The second, 'cu-amiga', is a general two way mailing list for comments, suggestions, criticisms and ideas for the magazine. Naturally it will contain some traffic so be prepared. To subscribe to these lists, mail'

cu-list@cu-amiga.demon.co.uk with a line containing 'subscribe cu-announce' and/or 'subscribe cu-list' in the body of the message. Please read the messages that are sent back to you carefully as they'll detail the rules and how to remove yourself from the lists if you want later. To send a message into the 'cu-amiga' mailing list, send your posts to

cu-list@cu-amiga.demon.co.uk.

Competition results

The brilliant VideoTracker 2.0 AGA was given away with the November 1994 issue of CU Amiga, giving every reader the chance to create stunning audio-visual demos using state of the art effects but with no need for any complex programming. We asked for VideoTracker users to send in their best work for a showcase competition. Here are some of the best entries and the ultimate winner.

Low Spirit by Michel 'DMX' Bagmeijer, Holland



▲ Minimal filtered rhythms are set to a backdrop of fractal patterns, warped and spun into a variety of tunnel and room effects. The most original part of the demo is the soundtrack, which has been filtered down to let only the lowest of frequencies through, creating a womb-like atmosphere.

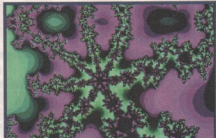
Eternal Madness by Digital Dreams, Holland



THE
WINNER!

A1200 with 300k RAM, 500k hard drive space.

Thudd by John Leach, Liverpool



A1200 with 200k RAM

▲ Gobs in the style here - simplistic distorted jackhammer beats and frog-squeaking synth patterns. The best thing about the visuals is that they're synchronised tightly with the beats, although they're just as repetitive as the music.

Real Virtuality by Dave the Brave, Belgium



A1200 with 200k RAM



▲ This one gets a thumbs up for having the decency to end before it gets too boring. While most of the others seem to go on repeating the same patterns into eternity, Real Virtuality combines a hard techno soundtrack with some good tunnels and rooms, along with a few Paint-coated colour-cycling pictures, and then stops.



▲ The memory restrictions of a 200k A1200 held back many of the entries, but Eternal Madness has been written for a machine with 500k of hard drive space and 300k of RAM, so it's got a head start already. The high points come with the fractal landscape flight animation that runs at a super-smooth 50 frames per second, the animated piano keyboard that plays the song's chords, and the general variety of graphics throughout the demo. The music goes on a bit, but overall it's a sterling effort. Congratulations, a prize of a four-disc Amine CD-ROM collection is on its way to you.



Frequently asked questions

OK you've got the accelerator, now you want even more speed. It's not all plain sailing you know ...

■ Q. I have an accelerator card for my Amiga. Can I make it go even faster?

■ A. Probably. First make sure you have some extra 32-bit RAM. The card's processor uses this extra RAM directly and it works much, much faster than memory on the Amiga. For example, fitting an 030 card to an A1200 will be a waste of time unless you get memory for it at the same time. If you do a lot of image rendering, get a Floating Point Unit as well.

■ Q. How do I add more memory?

■ A. Normally the memory is in the form of Simms (Single Inline Memory Modules) which clip into place. The card will have either one or two Simm sockets on it — which is a good reason to get the largest Simm you can to start with, so you don't have to throw the old one away.

■ Q. Don't some Simms cause problems with the PCMCIA port?

■ A. The Amiga A1200's PCMCIA port is mapped in memory to the same location that some accelerator cards would place their second bank of 4Mb — this can cause problems. You can check where your memory is with the showconf command at a Shell. Memory starting at \$2000000 will be a problem, memory starting at \$1000000 will be fine. When buying an expansion card ASK in advance if it clashes with the PCMCIA port, or you might have problems if you want to add a CD-ROM drive or external hard drive (internal hard drives will be unaffected).

■ Q. What speed of Simm do I need?

■ A. Simms are rated by speed in terms of nanoseconds (1e-9 of a second), and common speeds are 80ns, 70ns and 60ns. The smaller the number, the faster the Simm is at providing access. Depending on the speed of your accelerator card, you may need Simms rated at certain speeds — this can depend on the make of the card, the Simm and the weather. However, a good rule of thumb is:

Speed of accelerator memory card	Speed of Simm do I need?
25-28 MHz	60ns, 70ns, 80ns,
33 MHz	70ns, 60ns
40+ MHz	60ns

25-28 MHz 60ns, 70ns, 80ns,
33 MHz 70ns, 60ns
40+ MHz 60ns

As you can see, it is possible to use faster memory in slower cards (for example, 60ns memory with a 25MHz card). Some cards allow you to put slower memory in faster cards (for example, 80ns in a 40MHz card) by setting a jumper, but there is a speed penalty.

■ Q. How can I tell the speed on my Simms?

■ A. There will be a number on the Simm ending in -6 or -7 or -8, or possibly -60, -70 or -80 corresponding to the speed in tens of nanoseconds (-7 and -70 will be the same thing — 70ns).

■ Q. Can I speed up my accelerator by making it run faster?

■ A. Every CPU needs a clock signal, and every accelerator with a CPU on board (for example, a 68030-based card for the A1200)

will use a clock circuit to provide a constant 'tick'. The clock is the component that determines the speed of the processor the 33MHz or 50MHz — where 'MHz' stands for 'Megahertz' and is a measure of the number of clock cycles per second. For example, 50MHz is fifty million 'ticks' a second. Quite a lot, huh?

The clock circuit needs to be accurate, and so it depends on a quartz crystal. The crystal is packaged into a little oscillator chip (about a 1cm square with four legs) which is usually silver or black. There will be a speed rating on the oscillator, such as "50.000" for 50MHz.

Sometimes it is possible to replace the oscillator with a faster rated one to get more speed, however there are problems.

■ Q. Oh yeah? Like what? I heard all the chips were the same and they just printed whatever speed they wanted on them.

■ A. For a start, the accelerator card itself might not be able to run at 50MHz even though it worked at 33MHz — this has nothing to do with the CPU used, but crosstalk and line effects on the PCB itself. Most manufacturers design their boards so they do work at different speeds because then they can sell different models. However, the RAM might not run fast enough as we discussed.

However, there are big problems associated with running a CPU faster than it was designed for — in other words, running a 25MHz 68030 at 33MHz might not work properly. You'll hear a lot of discussion about this on the Net, and there are plenty of loudmouths around who will happily claim to be running a 16MHz 68020 at 100MHz.

Think carefully before you try experimenting with clocking. Bare these points in mind,

• Run a chip rated at 25MHz at 40MHz and it will probably not

work — i.e. the Amiga will not boot or crash within seconds.

• The physics of electronics tells us that if you run a chip faster, it gets hotter. The hotter it gets, the shorter its lifespan. 40MHz chips can hopefully cope with heat better than 25MHz chips. Also, in an A1200 there is no room for a heatsink: a piece of metal which clips to the top of the chip to take heat away. 68040 chips get so hot that a miniature fan is needed to keep them cool, but 68060s all use 3.3volts instead of 5volts and therefore run cooler — which is why you'll see 060 cards for the A1200 rather than 040 ones.

• If the chip gets too hot it may start making errors or even start to slow down.

• If the chip is not rated for a speed it may be because it failed certain tests at the manufacturing stage. You don't have the extremely expensive test gear needed to confirm the speed — what if your computer crashes whilst writing an important file to disk.

Only you can decide if the risks inherent in running a chip faster than it's rated limit are worth the trouble. If you are lucky, nothing will happen and your 28MHz system will run at 33MHz for years. If you are unlucky, the CPU will break and you will be without a computer until you get it replaced — you cannot repair a CPU.

■ Q. Can I swap CPUs?

■ A. No. The Motorola family are not pin-for-pin compatible. You can't connect a 68030 to the socket of a 68020, or a 68040 to a 68030. For example, if you have an Amiga 4000 with a 68030 CPU you will need to replace the entire processor board — with a WarpEngine or CyberStorm perhaps. The 68060 is slightly different and was designed to fit into a 68040 socket by means of a small adaptor card — theoretically making it possible to use a 68060 in a WarpEngine or other 68040 card. ■

John Kennedy

#

Masterclass

This month there's plenty of ideas to help you shape up your Workbench: you can stretch it, add some lively patterns or just have some fun with it. Plus there's lots of Workbench-specific PD programs to try out.

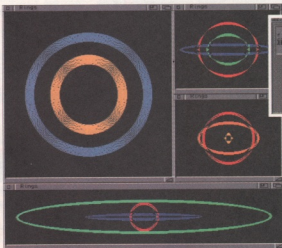
There is a lot of fun to be had, not to mention time to be saved, by experimenting with the hundreds of small programs which folks have written to alter the way in which Workbench works. This wealth of programs is a consequence of the very flexible design of Workbench, which means updating the system to use new features or tricks is quite straightforward.

From programs which have no real main function but are fun anyway to some damn handy utilities there's a lot to choose from. Here's a run down of some of the utility programs I've been playing around with this month.

All the software looked at in this article came from the Aminet 6 CD-ROM. You can find it in the utils/wb drawer either on this disk or on the real Aminet Internet FTP site. Alternatively, many BBSs will have it - including The Heart of Gold on 01247 274919 because I put it there myself because that's the type of considerate guy I am.

Bend and

Try stretching your Workbench. How does 1024 by 1024 sound? Big enough? Good, all you need to do is click 'off' the default settings in the Screen Mode requester and fill in some larger values. Once you have selected USE your Workbench will be redrawn (remember to shut down any Shells or other programs so the Screen can be closed and re-opened) and your new bumper size display is at your disposal. Simply move the pointer to the left or bottom, and the screen will scroll to display the extra area.



▲ Rings: this has no function at all except to look interesting but it's fun all the same.

Rings V1.1

Let's start with an easy one - a Workbench utility that has no earthly purpose whatsoever: Rings by Tim Kreuzer. It's described as a public-screen 'Moving Ring' graphic display, and that's exactly what it does.

It has no purpose other than to sit on your Workbench and well, ring.

That's all it will ever do. Why? Because that's what it is supposed to do. It's 'eye candy', and if you don't like it, you don't have to use it do you?

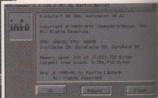
FreeSpace

It's fairly obvious, if you need to keep an eye on the amount of space free on any AmigaDOS devices, try FreeSpace by Barry McConnell. Incidentally, the C

source is also included, which is very valuable by itself.

WBExtender

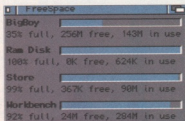
If you do like your Workbench screen title bar, and you also want a handy way of checking your hardware (in case someone sneaks into your room and swaps CPUs on you) you'll be interested in this commodity. Written by Martin Berndt, this extension will keep you up to date on your hard-



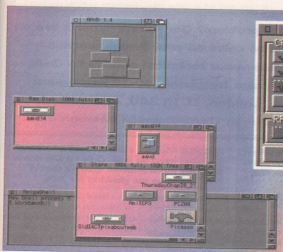
▲ WBExtender: up to the minute hardware information.

Pretty picture

Add a decent pattern to get rid of that boring grey colour in the background. If you don't have a lot of extra memory, you can use a simple repeating texture from the Prefs/WBPattern program - remember that as well as using the example textures, you can draw your own if you want. If you do happen have a little RAM to spare (and a graphics card helps a lot here, as it takes the screen memory from Fast RAM rather than Chip RAM) you can add a huge digitised picture with hundreds of colours. I spend days at a time creating various abstract textures in *The Art Department* image processing program. Try loading *Photogenics* and having a bash with the Plasma textures. Remember to lighten the pattern so that dark text has a good contrast and can be read against it, and also to send in your examples so we can pick some good ones to print in the magazine (and make available via the cover disk, Internet or BBS).



▲ Keep track of any unused space with Barry McConnell's FreeSpace.



▲ AAVD 14: Jimmy Westerlund's Almost a Virtual Desktop program enables you to have a snapshot of all your windows on display.

ware and provide other little snippets of news in the title bar.

AAVD14

Now here is something more useful – Almost a Virtual Desktop in fact. AAVD was written by Jimmy Westerlund and if you have ever used an XWindows system you'll know all about it. What, you haven't? Well, remember that bit about resizing the Workbench and scrolling around inside it to get more space to work in? No. Well

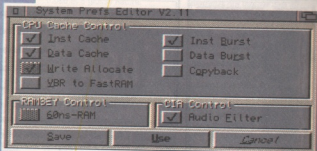
read the boxout entitled Bend and... now. OK done that, welcome back. Now wouldn't it be nice to have a little snapshot of all the windows in the display, so you could find each one quickly? That's what AAVD does – it displays a minute copy of the Workbench in a little Window all of its own. AAVD even allows you to move and resize the teeny little Windows as well and it's actually a lot of fun.

XSize32

Here is another XWindows inspired utility which adds a little bit extra to your Amiga. Carsten Melberg and Günther Rehm have created a utility which alters the way in which you size windows on the Workbench. Try it – you might like it.

SystemPrefs

In a similar vein, Richard Körber's System Preferences editor will provide you with an easy-to-use way of altering CPU settings. It will be of most use to 68040 owners, who



▲ Changing your CPU settings was never easier thanks to SystemPrefs.

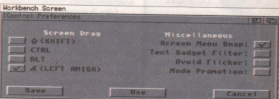
have the various caches at their disposal. Quite why they would want to switch them off and slow down their system is of course, a mystery. Perhaps if you only switch them on for half an hour a day you appreciate them more.

MagicColours

So you like MagicWorkBench do you? (It still like it better than NewIcons for some reason) but

found that using more than a few colours in my Workbench preferences caused my icons to go all funny. As ever, this was a consequence of the Amiga's liking for screwing up any but the first four colours. The MagicColours utility forces them back to sensible blues and greys – essential if you have a graphics card like I do (smug made on). ■

John Kennedy



▲ Clicking on Screen Menu Snap in the Prefs drawer will make sure that no matter where you are, the screen will automatically snap back to the menu displays.

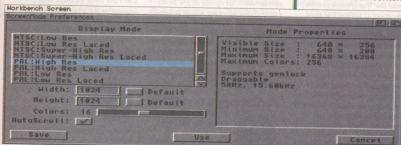
Do this now

Stop your Workbench acting as a backdrop window, by closing down the first item in the top left menu. Save the window along with the rest of your normal disk and icon positional settings. Why? Because it's pretty useless and if you are running a standard PAL screen it takes up valuable space.

How to handle your new display

If you find making it all the way back to the menus a little tedious with your new wide screen (see stretch box out), hunt out the *IControl* program, which is also in the Prefs drawer, and click on the 'Screen Menu Snap' button. From now on when you select a menu, no matter where you are, the screen will snap back to the menu displays.

This extra large display track can be very handy at times, and a lot more than a gimmick. Imagine for a moment that you are using a program which opens a long display and detailed window, and you need to use a scroll bar to step up and down. There will usually be a noticeable delay as the new screen contents are redrawn. Now make a huge screen, and drag the program's display window down into the unused space. Now you can scroll up and down in a jiffy, because nothing needs redrawn. The extra Workbench space is already used, and the Amiga only needs to point the Workbench viewport to a different location. This trick is especially useful for use with DTP and World Wide Web browsers and it even works on graphics cards too, where the Chip RAM limit is removed you can have some seriously gigantic displays.



▲ Get the wide screen you've always wanted by entering some larger values in the screen mode requester.

Logos, meanings and mysteries:



CD32 queries, ParNet and various other CD-ROM-related problems.



All about upgrading RAM, operating systems and processors.



Plug-in hardware of any kind: scanners, disk drives etc.



Answers to queries on particular pieces of software.



Music, sampling, MIDI and anything that makes a loud noise.



Miscellaneous tools to keep your Amiga running smoothly.



Form-feeds, page-breaks, preferences and lots lots more!



Monitors, TVs, modulators, screen-modes and all that stuff!



Pixels, sprites, animation, pictures. In one small word: graphics.



Spreadsheets, databases, organisers, accounts ...



Everything about answering about the internet



Not everything fits into a pigeonhole, but anything you like fits in here.



Got a problem? Our Amiga experts are on hand to solve all your Amiga worries.

Address your technical queries to Q+A, CU Amiga Magazine, 30-32 Farringdon Lane, London, EC1R 3AU. Alternatively email us at Q+A@cuamiga.demon.co.uk.



I feel all warm inside when I know I've helped someone out with their Amiga. So, keep 'em coming.



Me too, I like to lend a helping hand as well. Only I'd like some more internet queries that'd keep me glowing for sure.

RAM muncher

I have a standard A600, to which I have recently added a Gasteiner 120Mb hard drive. The problem is that I cannot run any of my 1Mb software, as the computer says it does not have enough memory available, even though it does from floppy.

I have contacted Gasteiner about this, and although they were polite, they were of little help. The engineer told me that the hard drive uses up some of the RAM, so 1Mb games will not run from it, even though they install perfectly all right and those that do run will probably be slower. He said the only way to solve this was to add more memory. So I have two questions:

1. Is there any way to get the hard drive to write itself off the memory as the software loads, or any PD software that can do this?
2. Are there any ways to add more memory to the computer, as the trapdoor slot is in use?

Dave Simmons
Hitchin

Gasteiner were right, but the solution is simpler than you think.

1. The hard drive uses some memory to load the Workbench system and some more is memory is used for a buffer whenever the hard drive is enabled, so you don't have a full 1Mb once it has booted. You can reduce the amount of RAM that's used during the boot sequence by holding down both mouse buttons on power-up and selecting Boot With No Startup-Sequence. You can then run programs directly from the Shell (bearing in mind that you'll also have to enter the relevant assign commands).

2. The hard drive is connected to your Amiga's internal IDE interface,

which is not the same as the trapdoor expansion port. Buy a memory expansion to plug into the trapdoor and your problems will be over. There are also RAM cards for the PCMCIA slot though this memory is more expensive and slower.

Interference

I am the happy owner of an A1200 with an internal hard disk, an 030 accelerator and 4Mb fast RAM. My free hard disk space is beginning to run low, so I am going to buy some more. Naturally, I want a PCMCIA hard disk, rather than having to discard the one inside my Amiga in favour of a larger one. Can you tell me if my GVP A1230 Turbo+ accelerator is interfering with the PCMCIA interface so I can't use it? If not will it if I add another 4Mb of RAM?

Sune Johansson
Denmark

You are right to be concerned about the trapdoor accelerator memory interfering with the PCMCIA port. However, this generally occurs if the trapdoor RAM exceeds 4Mb. So currently you could add a PCMCIA hard drive but could not if you added another 4Mb of memory to your GVP accelerator. One option might be an external box allowing you to connect another drive to your IDE port along with your existing hard drive. However, it's our recommendation that you consider getting rid of the smaller drive and buying a larger 3.5" IDE unit. Prices of these drives have fallen and they're much faster too.

Adorage tutorial

Will you be doing a tutorial for the marvellous cover disk Adorage 2.0? In April 1994 you gave away

Adorage 1.81. Unfortunately I was never able to get very far with that one even though I followed the instructions carefully. This time I can actually get all the demos and effects to work. I thought "Great, now I can really blind them all with the effects I want to show". Alas again I am stumped, although I have used interface and stretched low resolution pictures and saved them as interlace, Adorage will not accept the files. What am I doing wrong?

I have a bog-standard A1200 with an internal and external floppy. Following the instructions I get nowhere even with all the peripherals disconnected. I am using a MicroVitec monitor and the disks must have copied OK or I would not be getting the program to the point that I am. The Adorage program statement says "Incorrect File".

Alan Rushton
Tenerife

We will not be running a tutorial in the magazine for Adorage 2.0 as you can learn a great deal about the program from the free video tutorial, as advertised on the July 1995 issue. You can contact Burgess Video on 01874 611 633. Without knowing exactly where you are in the program when the error message appears, it's impossible for us to tell what is going wrong. If the video doesn't solve your needs write to us with more details.

Amstrad emulator

1. Do you know of an Amstrad CPC464 emulator for the Amiga? I have seen one advertised for the PC, so if there isn't an Amiga specific emulator, could I use the PC ones with PC Task?

2. Could you settle an argument between me and a couple of friends? I say that the Amiga (be it A1200 or CD32) could handle the PC range of *Star Wars* games (*X-Wing*, *Dark Forces*, etc) if there was less detail on the graphics. Could the machine handle it, or am I living in high hopes? If the Amiga can handle it, when will we see a conversion?!!?

3. This is more of a plead than a query, but does anyone out there have any old games they would like to sell or swap? I am particularly looking for *Barbarian* (the one on one sword fighting version), *Ikari Warriors*, *Renegade*, and the *Star Wars* arcade conversions (the 3D ones), and loads more! PLEASE HELP! I'm desperate for *Barbarian*! I'll swap *FIFA* for *Barbarian* 1 or 2! Help!

Yours hopefully, David Campbell, 212A Bromhouse Rd, Edinburgh EH12 9AD.

1. We've never come across any Amstrad emulators for the Amiga. In theory you should be able to run the PC Amstrad emulator program on the Amiga using PC Task, but don't count on it being a worthwhile mission. Why not just buy a real Amstrad 464. But then again, why bother at all?

2. A year ago would have said the Amiga couldn't handle texture-mapped 3D games like *Dark Forces*, but *Gloom*, *Fears* and *Alien Breed 3D* have proved otherwise. Whether we'll see an official Amiga conversions of *Dark Forces* depends on how soon the major software publishers regain their faith in the Amiga games market.

Self-booting disks



Could you please help? I have just completed two games constructed on Shoot Em Up

Construction Kit SEUCK (as given away on one of your cover disks) and I wish to put them on a self booting disk. I have tried the methods described in your SEUCK tutorials but neither worked, the second method coming up "Unable to open your tool"/IconX

Is there any software to enable me to make my own self booting disks, plus software to enable me to put in graphic intros with music, and that will let me make my own menus etc.

I have heard that some good software programs are available on PD. If so could you please tell

me which is the best and the easiest to use.

Alan Caton
Northampton

There are a few utilities in the public domain to help you create autoboot-ing disks. *AutoBoot 5* will do this, and although it isn't actually Public Domain, it's available for £1 plus 50p post and packing from C Yarnall, 93 Manchester Road, Wilmston, Cheshire. To add a menu to the disk, try *WB Menu Launcher* (disk no. U758) from Software 2000. Check their advert in this issue for details.

The reason why the IconX method failed was due to IconX not being in the current directory. Edit the icon information and insert 'C:\IconX' in instead.

Serial killer



I have an A1200 with 2Mb of Fast RAM. I just sold the grand-mother to get a US Robotics Courier modem. The full V34 28,800 baud jobbie. Now the question is, since the manual recommends that it's run at 115,200 baud between the computer and the modem, I'm worried that my A1200 can't handle that rate since I have been told by my chums that no more than 38,400 should be used. Does that mean I can't take advantage of 4 to 1 compression for a higher throughput? What is the highest rate that I can safely use on my A1200's serial ports? Do the third party PD serial devices help?

Anthony Brice
North Harrow

The original Amiga designers didn't see a need for a fast and powerful serial port on the Amiga. Alas only now are we beginning to feel the effects of the inadequate 1 byte buffer that it has. We recommend that you use \$7,600 baud. This is about the maximum your machine can handle without errors and should perform faultlessly if you are careful to keep your machine's activity to a minimum while transferring data. The third party serial devices can be more bother than they are worth. The Commodore V38.4 serial device provided with your machine is perfectly adequate.

DTP Solutions



I currently own an A1200 (only 2Mb I'm afraid) with an 80Mb hard drive. I am interested in producing pamphlets, small catalogues,

leaflets etc, preferably including those of a glossy nature.

I am also interested in programming (just learning Easy Amos), with a view to producing educational software. I would like to produce some animated works too.

1. Aside from the obvious need for more memory (how much?) what software and hardware would you recommend in my pursuit of excellence?

2. Should I swap my Citizen ABC for a different printer?

3. How can I put my camcorder to good use with these projects, and what software is best for this?

Trevor Jones
Lincoln

PageStream 2 is on one of this month's cover disks and is an extremely powerful DTP package. We also recommend *PageStream 3.0i* (or *PageStream 3.1* when it's released). See our review on page 82 of this issue. You could upgrade your printer, but don't expect to be able to output glossy leaflets directly from your Amiga to a printer without spending a very large sum of money. For this work you should supply a printing company with your documents in Encapsulated Postscript form on disk and let them handle the printing.

Your camcorder can be put to good use as a video digitiser source. Check out *ProGrab 24RT* from Gordon Harwood on 01773 836 781. They now have both a composite video and an S-VHS version available. S-VHS gives superior results, so go for that one if your camcorder is S-VHS compatible.

Zippy drives



Having read your review of the Zip drive, I can't be without this amazing device any longer.

However, my A1200 has no SCSI provision at the moment. My trap-door is free and I don't know whether to go for one of the cheaper SCSI-only cards and possibly the Squirrel PCMCIA interface or an accelerator with a SCSI provision. It seems to be that the accelerator add-ons are 'DMA' where the SCSI-only cards and the Squirrel are not. What is the difference between the two and would I notice it on the Zip device?

E. Johnson
Texas

Aside from the benefit of the speed of the accelerators, 'DMA' or Direct Memory Access, is indeed a valuable

feature. This means that the SCSI controller can transfer data directly to the memory on the accelerator board without bothering the CPU with the process. The internal IDE interface on the A1200 also has DMA. In this case the CPU has a lighter load, which keeps other programs running at speed while you load and save files. Access times are also improved with DMA. The Zip drive's transfer rate of 1Mb per second will not tax a SCSI interface, so access times will only be slowed if the CPU has too much to do on once.

CyberGraphX



I have a Piccolo SD64 graphics board which I use with all my graphics related packages to maximum effect and I'm most happy with it generally. Currently I'm running the EGS 7.1 system on it because although the CyberGraphX RTG system is better, the screen mode editor sucks rocks and I can't create the screen modes that I have under EGS. What can I do? Can I port the EGS monitor definitions across to CyberGraphX somehow? Any help would save me the inevitable EGS crash and burns that I suffer on a daily basis and I can move to CyberGraphX permanently.

K. Hennessey
Dublin

We also found CyberGraphX to be the superior RTG system to run on graphics boards. Certainly it's gaining rapid acceptance in new applications and viewers may at last be the 24-bit initiation standard the Amiga needs. However, we too have had problems using 'CV Mode' to create new screens. The only advice we can offer is that you write down the numbers in the EGS 'tweak' and attempt to enter them into the CV Mode program. With some perseverance, starting with getting the key values like Pixel Clock correct, you should be able to replicate your favourite screen modes in no time. With the advent of CyberGraphX turning into a commercial product for all Amiga graphics boards, let's hope this weak expert improves with future development. ■

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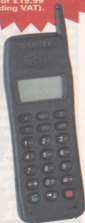
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Back chat

Some people say "Opinions are like bums; everybody's got one". True, but unlike bums, opinions aren't kept hidden away in underwear all day, they're here in print for all the world to admire. If you want yours put on show to the Amiga world (opinion that is), get it to us via the address on the opposite page.

Australia, and murder all the men you can even if they only look slightly like one of your ex-husbands.

J Barryson, Saffron Walden.

Hmm, it's a crazy idea and hey it might just work. Who knows maybe any software developers reading this might take up the idea. In the meantime may I suggest therapy? All that anger can't be good for you. Breathe in deeply and repeat after me: "In with anger," now breathe out slowly chanting the words "out with love". Don't you just feel better already?

letter of the month It Can Be Done!

Having seen some of the incredible demos on the PD scene I found myself thinking: "Why don't software companies give these people jobs so they can create incredible games". If you watch "Brain State In A Box", one of the sections looks a lot like *Magic Carpet* on a high end PC. Surely it wouldn't be too hard to use this code in a game? If games like this came out for the Amiga there would be a lot more interest in the machine. Escom could get involved and they could use graphics from the game in adverts on TV. Programmers like Mark Sibly and his Kiwi mates have shown what a fantastic games machine the Amiga can be. I hope they keep up the good work, as currently their games and those made by Bullfrog (will they do any more games for the Amiga?) are the only ones worth buying. It is good to see that games like *Super Skidmarks* out-sell over-hyped turkeys like *Rise Of The Robots* and limited console games alike. If there is any justice Gloom should make more money for them than *Cannon Fodder 2* did for *Sensible Software* (a cash-in if ever I saw one).

Robert Simpson, Exeter.



CU-The One Amiga?

As a subscriber to both of EMAP's Amiga magazines, I was really down when I heard about the *The One's* closure. It was better than Amiga Action and Amiga Power and it always had the best disks, previews and reviews. It seems strange that EMAP chose to close the magazine at a time when things seem to be looking up for the Amiga thanks to Escom's takeover. You have made a move I really don't understand. Why does the best Amiga games mag have to die? I got the 'new' CU Amiga with *The One* inside it yesterday, and I don't like it. The reviews are still CU Amiga like, there was only one preview. The thing that has made me most angry is that as a subscriber to *The One* I have just renewed my subscription for another year, starting in June. Surely EMAP must have known sooner that they were going to close the magazine? Now I have paid £50 for just one issue. I now have the option to subscribe to another magazine (but EMAP don't have another Amiga title) or get a refund, but when the bank changes the money it gets 30% of it. This is very unfair behaviour, and if EMAP don't do something about this I will not renew my subscription to CU at the end of the year. It is a real shame they closed *The One*, and I hope they reconsider and release it again, because it was the BEST games mag.

Maybe you will print my letter in the still great CU Amiga, and I hope you don't get incorporated into PC User.

Michael Rupprecht, Germany.

Good news: *The One* has been bought from EMAP by another publisher, and will once again grace the newsagent shelves as a complete magazine. All previous subscriptions will be honoured.

High powered women

Having a high pressure job, I play computer games to CALM DOWN. I like games where you can go completely mad, killing everyone in sight, ripping their limbs from their mutilated bodies. How about a game where you travel to exotic locations such as Singapore and

The best game ever

I have just purchased *Gloom*, and I reckon it is one of the best games ever. It says in the box that there will be data disks available in the future. It would be great if there were new things such as water, vehicles, different weapons, and other people like civilians, or soldiers who were on your side. If you think any of these ideas are possible could you pass them on to the developers.

Gary Beadle, Huntingdon.

Consider them passed on. Look out for Gloom 2, plus some exclusive data disks coming soon ...

Not the best game ever

I have been reading so much about *Gloom* and I really want to play it, but I only have a 1Mb A500. Are there any good substitutes, I can't afford to upgrade?

Philip Larson, Clacton.

No.

BBC emulator?

I have a collection of BBC games on a 3.5" disk and I am desperate to play them again. Is there an emulator that will allow me to play them on my Amiga, and if so A: How fast B: Where can I get it from?

Matt Barlow, Loughton.

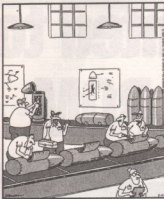
We haven't come across any, but if anyone else knows of one, fill us in.

Amiga back on course

When will Escom actually get some Amigas into the shops? Its been months since they bought Commodore and they've been flogging PCs in Rumbelows for ages. I have heard they intend to charge £400 for a regular A1200! At this price the Amiga is doomed unless Escom make it a super charged accelerated sex

THE FAR SIDE

By GARY LARSON



"Well, here he comes... Mr. Never-Makes-a-Dud."

machine. If I see the man from Escrom 'investigating' round my way I'll stick a dodgy PC up his trench coat.

Dan, Luton.

There should be Amigas in the shops by the time you read this, or failing that, 'real soon now'. The Amiga will be sold through Escrom's self-titled high street retail shops, well in time for Christmas. See the News section in this issue for all the latest developments.

Where's Daytona?

I own a CD32 and I was wondering why none of the games look anywhere near as spectacular as those on the Sega Saturn. The CD32 is 32 bit and has a CD drive like the Saturn, so why don't we see games like *Daytona* available for it?

I am unhappy with my CD32 because even though there are some very good games for it, you can get games just as good on an A1200 or even a A500. I think that it will probably go the same way as the CDTV, which would be a real shame.

Colin Curly, Newcastle.

The reason the Saturn and Playstation can handle games like *Daytona* is that they have custom hardware specifically designed for animating 3D graphics. Sega have the advantage of their coin-op technology, which can be filtered down to a cost-effective consumer level and squeezed into a console. Escrom seem to want to sweep the CD32 under the carpet, with no immediate plans to put it back into production in its original form. However, there's a chance that it may resurface in 1996.

Abandon ship

The closure of The One has got me worried. Will CU close too? I hope not. I think this closure is a sign that everybody is getting ready to ditch the Amiga and jump on the PC/super console bandwagon.

If something pretty amazing doesn't

happen to the Amiga soon all the rats will have left this sinking (but repairable) ship.

S. Sharpe, Hunstanton.

As we all know, there's plenty of life left in the Amiga. However, one of the problems it will face after its relaunch is that the A1200 is still being sold off the shelf with 2Mb of RAM and a 170Mb hard drive as an option. As these are the only two configurations in which Escrom are supplying the A1200 to retailers, perhaps the retailers themselves could start making up their own powered-up systems (as they do with PCs), with bigger hard drives, SCSI interfaces, extra RAM and accelerators. This way the Amiga could be seen by the public to be on an equal footing with sub-£1,000 PC systems as far as specifications go, with all the added benefits only the Amiga can offer. Finally, don't CU Amiga Magazine will be here for a long time to come yet.

It's true - I swear

On reading the March issue of CU Amiga I noticed the game called *The Patricians* (VFM page 66), and thought that you may be interested to know that there are currently a group of people called 'Patricians' who encourage people to apostleship.

This religious group was founded by Frank Duff in 1955 to build up the religious knowledge of the people, to teach them how to explain themselves and to encourage them to apostleship.

Mrs Patricia Walsh, Dublin.

Well, you learn something every day don't you? By the way, thanks for the neat little book. Spy thrillers and horror-fantasy novels are more our style, but we're open to a bit of apostleship conversion from time to time.

Cheap sales trick

Do you really have to resort to putting pictures of women in swimsuits on your covers in order to sell your magazine? I was under the impression that this was a computer mag, not some second rate 'adult interest' rag. Please don't let it become a habit.

Nick Russel, Ayresshire.

According to most comments, it was well liked ...

Congratulations!

May I congratulate you on your best ever cover! It's all very well putting Amigas and disk drives on magazine covers, but that picture of Pamela Anderson was just the best! Don't let those party-poppers tell you it's sexist either - it's just the same as girls' mags having a topless shot of some hunk in his boxers on their covers?

James Barlow, Sussex.

Send it in, go on

Go on, you know you want to. Write it down and send it to us at CU Amiga Magazine, 30-32 Farringdon Lane, London EC1R 3AU or Email us at backchat@cu-amiga.demon.co.uk.

TEAM TALK

It's September and it's back to school time. Except for the CU team, who have bunked off to discuss their most embarrassing back to school moments.

ALAN DYKES



On returning to school after the summer holiday, 'Dykes' as he was then known, sat himself down for registration at the front of the class and waited for his name to be called out. Some time later, it finally dawned - Dykes was now in a third year and should have been in the upper school building!

LISA COLLINS



Poor Lisa. Whilst she was chatting up the man of her dreams on the first day back, she thought she had her hand in her pocket. Unfortunately her hand was gradually opening the side of her skirt revealing everything to all and sundry. To this day she is thankful that no one noticed.

TONY HORGAN



These days Tony wouldn't object to having his clothes ripped off by a bunch of enthusiastic young ladies, but the ritual de-bagging session suffered in the cloakroom this first-faced first year was a different story. What a good job it was that his mum had sent him out with clean T-shirts.

MAT BETTINSON



Mat's most embarrassing school moment was when he fell asleep in the computer room with his head on a boy-beard. The real humiliation came when his teacher made him clean up all the debris from the keys in front of the class. Of course that sort of thing happens all the time in the CU office.

HELEN DANBY



Mid-mannered Ms Danby was once a rebellious punk, complete with a spiky mohawk. During one of those post-summer 'experimental' phases, the colour of her hair was a water-soluble spray. A hair shaver was all it took to wash the blood-red dye all over her best Teenie Tude T-shirt.

JOHN KENNEDY



Most kids get to know their new classmates with a combination of conversation, playground japes and general social interaction. However, John sought a more direct route when it came to his female classmates, preferring to crawl around under the desks to examine their underwear.

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Not in November ...

Worms. No, despite our promise of a full review this month someone left a bag of salt near Andy Davidson's Amiga and Worms has slipped by two months. We'll have it in December. Maybe.



Plus: Cinema 4D

The pretender to the rendering crown. After minor development delays it's finally ready for review: we put it through its paces next month.

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view
is all the rage,
but what
about forward
compatibility?"
asks Mat
Bettinson.

Welcome to tomorrow

"Backward compatibility

is all the rage,
but what
about forward
compatibility?"

asks Mat

Bettinson.

It didn't seem to matter that your hero looked like a banana milkshake and the advancing alien scum resembled out-of-focus nose pickings. Those were the days when the C64 reigned supreme, and gameplay was more important than anything. We didn't expect fancy graphic physics because we knew it just wasn't possible to represent anything resembling reality.

But now ...

If like me, you grew up with appalling graphics, you may not hold much stock in the games that excite the youth of today. I fail to be impressed by awesome monsters who look frighteningly realistic but couldn't fight their way out of a paper bag. See *Rise of the Robots* for an example of this. Give me a good old top down looks-like-nothing-in-reality vertical shoot 'em up any day. You can keep your modern gaming efforts and I'll stick with the past.

Confound it all then if I wasn't dragged kicking and screaming into the 90s game scene when I saw Mark Sibly's *Gloom* for the first time. 'They' said it couldn't be done on the Amiga. A red rag to a bull or

what? It wasn't long before demo coders started earnestly lashing up Doomesque 3D texture mapping engines.

Old and new game players alike can't fail to be drawn into the atmosphere of this game. It could just be what the Amiga needs right now.

Gloom has been programmed to play as fast as possible on anything from a basic A1200 upwards, with the option to expand the display right up to full screen size, even though a full screen display is rather slow on a low-end Amiga. This means higher-spec Amiga users get to play the game to the best of their computer's abilities.

Too complex?

Another game which has catapulted me forward into the 90s is Team 17's *Alien Breed 3D*. This a slightly more complex game than *Gloom* (technically speaking) and has extra work to do with its multi-level floors, stairways and vector objects. It's been aimed at lower-end Amigas, and has had its gameplay window reduced in order to keep the speed up, regardless of whether it's running on a 50MHz 68060 A4000, a basic A1200, or anything in between.

The problem here, though, is that the Amiga is not really suited to this type of graphics. Without going into the technicalities, it takes longer to draw a single dot on the Amiga's screen than a PC type 'chunky' screen. So at the end of the day, the CPU is overtaxed by having to convert between the different formats. The graphics co-processor helps but it still means these games can be a pale shadow of *Doom* on the PC.

Unless of course, Amiga enthusiasts decide it's time to stop putting up with it and power-up their machines to make the most of the available software out there. When *Doom* arrived on the PC, suddenly the PC owner's 286 wasn't enough. *Doom* was the *Mario Brothers* of the PC, the killer game that people would spend serious amounts of money to play because it was so damned good. The same scenario has now descended on the Amiga platform. Sure these texture-mapped games work on a stock A1200 but you're in for a long wait between frame update times. *Alien Breed 3D* really DOES need some serious CPU to move along at a decent frame rate. Even though it occupies a measly letter box in the centre of your screen. Best upgrade if you want to get the best out of these games.

Pulling power

People will upgrade if they're given an incentive. They want full screen action and they'll buy the hardware to get it. Obviously playing a *Doom* clone won't be the only reason their serious applications will certainly benefit but I argue that for many, the lure of these games will be the major reason for buying an accelerator.

I just hope that games developers will realise that just making sure their products work on a stock A1200 is not enough. How hard can it be to allow the screen to be expanded or the resolution increased? Why not support the now popular range of 'chunky' 24-bit graphics boards? Perhaps there's too much foresight involved there but maybe, just maybe, the software will drive the market. Now all I need is a multi-tasking *Doom* game so I can pop back to my word processor when anyone looks. ■

Mat Bettinson

The opinions expressed in this article are not necessarily those held by CUJ Amiga Magazine. If you hold an opinion on this subject or any related subject then email us at: CUAMIGA@cu-amiga.demon.co.uk



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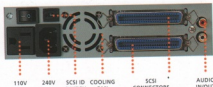
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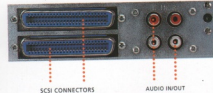
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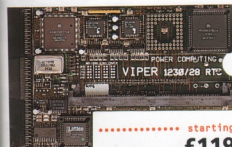
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